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ABSTRACT

The purpose of this study was to define the role of occupational experience in preparing vocational business and office education teachers. A multistep procedure was utilized to identify purposes of occupational experience and to validate teaching competencies. Second, a literature review was completed to generate a list of purposes of occupational experience. The list of purposes was refined by two national panels of experts consisting of teacher educators and State supervisors in distributive education and business and office education. Third, teaching competencies that can be developed through occupational experience were validated. The base for competency validation was a list of 95 competency statements compiled from the 384 validated performance elements for vocational education teachers which were identified in a study by Calvin J. Cottrell in 1971. A questionnaire was developed for rating each competency as to relative value of occupational experiences in developing that competency. It was mailed to randomly selected samples of (1) distributive education and business and office education teachers in the states of Colorado, Kansas, Missouri, Iowa, and Minnesota and (2) State supervisors and teacher educators in the U.S. Analysis of the identified purposes and teaching competencies provided a final listing of purposes of occupational experience agreed upon by State supervisors and teacher educators and a listing of teaching competencies that can be developed through occupational experience agreed upon by classroom teachers, teacher educators, and State supervisors. All results were analyzed in order to determine the value of occupational experience for vocational education teachers and recommendations were made for utilization of the results and for further research. The report includes data analysis, summary, conclusions, and recommendations. Questionnaires and competency lists are appended. (WL)

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FINAL REPORT

Vocational Education Research Project
Vocational Education Amendments of 1968
(Public Law 90-576)

The Purposes of and Competencies Developed Through Occupational Experience for Vocational Education Teachers

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U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
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CHAPTER 1

INTRODUCTION

Support has been expressed within education in general and vocational education in particular for a more objective base in teacher preparation programs. One of the results has been numerous research efforts and programmatic developments in competency-based teacher education.

Certification requirements for vocational education teachers in most states have three major components--professional (education) requirements, technical (subject or program) requirements, and occupational experience requirements. These requirements have traditionally been stated in terms of degrees or specific course requirements and in number of years or total hours of work experience.

An increasing number of studies have been completed which attempt to identify the specific competencies needed by vocational education teachers that are implied in certification requirements. Most notable among recent research is the work of Cotrell et al., at Ohio State University, in which common performance elements needed by vocational education teachers were identified and validated.[1]

At this point competency validation studies have failed to deal adequately with the occupational experience component of teacher preparation. Occupational experience requirements for vocational education teacher certification among states are some what less than standardized. Most are stated in terms of numbers of years or total hours of work experience required and variables include the amount, variety and recency of the experience. A need exists to determine the purposes of occupational experience as an element of vocational teacher preparation and to determine the teaching competencies that can be developed through occupational experience.

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[1] Calvin Cotrell et al., Model Curricula for Vocational and Technical Teacher Education: Report No. I Performance Requirement for Teachers, Final Report (Columbus: Ohio State University, 1971), passim.

STATEMENT OF THE PROBLEM

The purpose of this study was to define the role of occuptional experience in preparing vocational business and office education teachers. In order to more clearly identify that role, the study was designed to answer the following questions:

1. What are the purposes of the occupational experience requirements for vocational teacher certification for vocational education teachers?

2. What are the teaching competencies needed by vocational education teachers that can be developed through occupational experiences?

RESEARCH DESIGN

A multi-step procedure was utilized to identify purposes of occupational experience and to validate teaching competencies. First, a literature review was completed to generate a list of purposes of occupational experience.

Second, the list of purposes was refined by two national panels of experts consisting of teacher educators and state supervisors in distributive education and business and office education. These panels reviewed and attempted to achieve consensual agreement on the purposes of occupational experience through the use of a modified Delphi Technique.

Third, teaching competencies that can be developed through occupational experience were validated. The base for competency validation was a list of 95 competency statements compiled from the 384 validated performance elements for vocational education teachers which were identified in Cotrell's study.[2] A questionnaire was developed using these competency statements and a Likert-type rating scale. Respondents to the questionnaire were asked to rate each competency statement as to the relative value of occupational experiences in developing that competency.

The questionnaire was mailed to randomly selected samples of distributive education and business and office education teachers in the states of Colorado, Kansas, Missouri, Iowa, and Minnesota. It was also mailed to randomly selected samples of distributive education and business and office education state supervisors and teacher educators in the United States.

Finally, analysis of the identified purposes and teaching competencies provided a final listing of purposes of occupational experience agreed upon by state supervisors and teacher educators in distributive education and business and office education and a listing of teaching competencies that can be developed through occupational experience agreed upon by classroom teachers, teacher educators, and state supervisors in distributive education and business and office education. The list of teaching competencies were categorized within ten components of a vocational teacher's role. The factors were analyzed to determine which were most influenced by occupational experience. All results were analyzed, in order to determine the value of occupational experience for vocational education teachers, and recommendations were made for utilization of the results and for further research.

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[2] Cotrell et al., loc. cit.

DELIMITATIONS

This study was restricted to the specific vocational program areas of business and office education, and distributive education.

In the validation phase of the research, samples of distributive education and business and office education teachers was randomly selected from the populations within Colorado, Kansas, Missouri, Iowa, and Minnesota.

The verification of purposes of occupational experience was accomplished through the use of a modified Delphi Technique.

Competencies were validated using a Likert-type scaling of opinion.

LIMITATIONS

Since the basis of the research design was limited to the opinions of selected distributive education and business and office education teachers, the value of the results is dependent on the objectivity of the responses.

While an objective of this study was to validate teaching competencies that can be developed through occupational experience, the use of opinion sampling results in a verification of respondents' experience rather than validation of ideal performance levels.

The impact of sample size and composition should be acknowledged when making generalizations to other populations.

CHAPTER 2

REVIEW OF LITERATURE

Five areas of investigation were pertinent to this study: vocational teacher qualifications, value of occupational experience, competency base for teacher education, Delphi Technique, and Likert-Scaling Technique.

Descriptions of variations in vocational teacher qualifications are presented in section one. Section two contains opinions on the value of occupational experience. A review of research on competency-based vocational teacher education is presented in section three. The fourth section pertains to the Delphi Technique, one of the research techniques used to collect data for this study. The fifth and concluding section of the chapter contains a description of the Likert-Scaling Technique used to obtain attitudinal information.

VOCATIONAL TEACHER QUALIFICATIONS

The question of what qualifications are needed by vocational education teachers is basic to the discussion of the structure of vocational teacher education programs as well as state certification requirements. The differences that can be noted among such programs and requirements demonstrate the lack of agreement on these qualifications.

In a paper presented at the 1968 Upper Midwest Vocational Teacher Education Conference, Allen commented on the number of variations in teacher certification among states, instructional categories, and educational levels. He indicated that certification requirements should encourage rather than discourage the development of teachers for the variety of needs within vocational education. the purpose of such requirements, according to Allen, should be to "provide flexibility and reciprocity within as well as among states to achieve instructional excellence without damaging desirable standards."[1]

Gillie, in Principles of Post Secondary Education, noted the variations among states in certification requirements for vocational teachers and described the basis for certification requirements in many states:

> The accumulation of a predetermined number of years of work experience or attainment of a certain degree does not insure competency in the teaching of an occupational subject or in the administration of an occupational program or college. Yet these elements (academic background and work experience) have become the heart of certification, probably because of the ease with which they can be identified and catalogued.[2]

By analyzing occupational experience requirements for certification of business and office education teacher coordinators in the United States, Thoreson found that approximately 83 percent of the states required occupational experience, with 57 percent of that group requiring one year and 26 percent requiring two years' occupational experience.[3]

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[1] David Allen, "Developing Innovative Vocational and Technical Teacher Education Programs," Final Report of the Upper Midwest Vocational Teacher Education Conference, Ed. Mary Klaurens (Minneapolis: May, 1968), p. 18.

[2] Angelo C. Gillie, Sr., Principles of Post Secondary Vocational Education (Columbus, Ohio: Charles E. Merrill Publishing Company, 1973), p. 183.

Kazanes and Keift criticized the certification requirements of many states in a report on a project to develop competency examinations for use in certification procedures:

> The present certification procedures and requirements of most states can be considered unrealistic. Most states require that the prospective vocational teachers have a Baccalaureate degree plus at least three years of occupational experience. This amounts to seven or eight years of preparation for vocational teaching. This tends to discourage many young and ambitious people from entering the profession.[4]

At the 1967 National Vocational Teacher Education Seminar, Tonne discussed certification requirements:

> We can become so specific in our requirements that we make it impossible to secure teachers. The attitude, personality, and even the basic education of the teacher may be more important factors than highly specialized job experience in a world in which jobs are changing with dramatic frequency.[5]

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[3] Hubert N. Thoreson, "An Analysis of Current and Recommended Occupational Experience Requirements for Certification of Vocational Business and Office Education Teacher-Coordinators in the United States" (unpublished Doctor's dissertation, University of North Dakota, 1972), p. 152.

[4] H. C. Kazanes and L. D. Keift, An Experimental Project to Determine More Effective Vocational Teacher Certification Procedures in Michigan by Competency Examinations (Ypsilanti: University Press, Eastern Michigan University, 1966), p. 5.

[5] Herbert A. Tonne, "Trends and Problems in the Professional Education of Vocational-Technical Teachers," Vocational-Technical Teacher Education--National Seminar Proceedings, eds. Neal E. Vivian and Kenneth E. Hoffman (Columbus: Center for Vocational Education, Ohio State University, 1967), p. 32.

While there is great variation in vocational teacher certification requirements, some amount of occupational experience is a common element of vocational teacher qualification standards among many states.

Hammond discussed the historical nature of the occupational experience requirement in Vocational Education: Social and Behavioral Perspectives:

> At one time collegiate preparation of teachers of vocational education was considered inappropriate, if not inconsistent. The greatest emphasis was laid upon the trade, occupational, or industrial experience. Certain proficiency in the requirements of the occupational field ranked high on the list of essential competencies. Invariable such competencies have been obtained through work experience.[6]

VALUE OF OCCUPATIONAL EXPERIENCE

While little research is in evidence regarding the nature, purpose, or value of occupational experience to the vocational teacher, opinion abounds within the literature to support the need for occupational experience as a pre-teaching requirement.

Meyer, Crawford, and Klaurens described the value of experiences within an occupation to a vocational education teacher:

> A teacher-coordinator must have sufficient competency in the occupation(s) in which he teaches to command the respect of practitioners in the field. In order to keep up-to-date on the technology of his occupational field

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[6] James J. Hammond, "Response, " Vocational Education: Social and Behavioral Perspectives, eds. Carl J. Schaefer and Jacob J. Kaufman (Lexingtion: Heath Lexington Books, 1971), p. 202.

> and to maintain his occupational status, he should participate in selected professional activities of that field. One's professional behavior in his occupational field(s) usually sets an example for his students. It also enables him to become aware of the need for curriculum adjustments and helps him improve his competence in vocational guidance.[7]

Familiarization with the skills, technical knowledge, and mores of the occupation are other benefits of occupational experience according to Beasley and Smiley.[8]

Values of work experience cited by Goodrich include the development of insights which can be shared with hundreds of students. In her opinion teachers need to know present conditions in businesses in order to see the world of work from the student's point of view. She adds that occupational experience should enable teachers to help the students plan realistic career goals.[9]

Three major benefits of occupational experiences gained by vocational teachers who participated in an internship exchange program sponsored by Eastern Washington State College were:

> 1. All vocational teachers need to have actual experience in business/industry in order to make their particular discipline more relevant to students. The

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[7] Warren G. Meyer, Lucy Crawford, and Mary K. Klaurens, Coordination in Cooperative Vocational Education (Columbus: Charles E. Merrill Publishing Company, 1975), p. 54.

[8] Gary Beasley and James Smiley, Occupational Experiences for Vocational Education Teachers: A Handbook for Teacher Educators (Columbus: Ohio State University, 1971), p. 2.

[9] Elizabeth Anne Goodrich, "Business Teachers Get Out and Work," Journal of Business Education, 45:199-200, February, 1970.

> need for teacher-coordinators to understand the many ramifications of today's complex business and industrial world enabled them to go back to their individual situations and produce creative programs in their schools.
>
> 2. Students' needs were more effectively met because the teacher-coordinator knew more precisely what cognitive, affective, and sensory objectives need to be accomplished.
>
> 3. Business and industry become more aware of vocational education needs by participation in the project and in return vocational education becomes more cognizant of business/industry needs.[10]

Jones studied the work experiences of business teachers in 54 states and territories. He found that 39 states and territories required some amount of work experience for certification. However, there appeared to be little consistency in amount or type of experiences required among states. The values derived from work experiences that were cited by a majority of business teachers responding to Jones' questionnaire were that they:

> a. Increased ability to present students with facts about business
> b. Developed their confidence because of their knowledge of current business procedures gained through the experience
> c. Improved their understanding of what job preparation really is
> d. Made them more efficient teachers
> e. Increased their awareness of the latest business practices
> f. Improved their skill in human relations
> g. Increased their guidance ability.[11]

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[10] Washington Research Coordinating Unit for Vocational Education, The Professional Internship Exchange Program in Vocational Education (Cheney: Eastern Washington State College, 1972), p. 5.

[11] Maloyd E. Jones, Jr., "Work Experience Programs in Business Education," Delta Pi Epsilon Journal, 15:30, February, 1973.

Less than a majority thought work experience assisted in the following ways:

a. Provided desirable contacts with businessmen
b. Developed their ability to assume a greater leadership role
c. Made them better able to apply motivational techniques in the classroom.[12]

Of the conclusions drawn by Jones, the following were most pertinent:

> In the opinion of business teachers who participated in college/university organized work experience programs, work experience makes a positive contribution to the classroom effectiveness . . . and business teachers who have had work experience are convinced of its value as an element of business teacher preparation . . . .[13]

Wiggins and Carmichael suggested that work experience develops interest in and attitudes toward work which are important for the future vocational teacher. While work experience is not the primary way of developing skills in the "teaching-learning process," it might very well be the best method of personal development and broad-knowledge development available to the vocational teacher.[14]

Work experiences cannot be viewed in isolation, according to Wiggins and Carmichael. It is just one part of the preparation program for teachers. The concern should be for the contribution of work experience to program outcomes rather than viewing it as "a static input to a preparation program."[15]

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[12] Ibid.

[13] Ibid., p. 32.

[14] Lloyd L. Wiggins and Ben E. Carmichael, "Work Experience for the Professional Development of Vocational Teachers," Advocacy on Issues (St. Paul: University of Minnesota, 1974), p. 27.

They concluded:

> Ideally, the subject matter necessary for the person to qualify as a vocational teacher should be a combination of formal classroom instruction and work experience. The extent to which the teacher needs work experience is directly related to the level of instruction in which he will be engaged . . . .[16]

Walsh and Sheldon also voiced support for the need for work experiences by vocational teachers. They based that support on the premise that such experiences are essential in order to "provide students with the occupational skills, knowledge, attitudes, and appreciations they need to fulfill their aims."[17]

They emphasized:

> It is imperative that he who would prepare students for successful vocational careers must first of all know, from experience, the skills and activities required for success in the occupation and must have been successful in it.[18]

In a series of seminars directed by Cook, leaders in Business Education developed guidelines for the preparation of business teachers. One of the resulting guidelines was:

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[15] Ibid., pp. 27-28

[16] Ibid., p. 32.

[17] John Walsh and William Sheldon, Mocational Education, The 64th Yearbook of the National Society for the Study of Education, ed. Melvin Barlow (Chicago: University of Chicago Press, 1965), p. 129.

[18] Ibid., p. 170.

> A teacher should have related occupational experience in an office, supervisory, or management position.[19]

The guideline was based on the premise that

> A teacher is better equipped to teach those things which he understands and is able to do himself. To integrate knowledge, basic skill, and attitudes into a satisfactory work pattern, a teacher must possess both occupational competencies and a basic understanding of the administrative functions of businesses.[20]

The need for work experience as a requisite of teacher preparation in vocational education seems to be well substantiated in the literature by opinion if not through research. While such experience has become a common element of state requirements, there appears to be a lack of agreement as to specific purpose and value of occupational experience for vocational teachers. Meyer outlined problems inherent in the occupational experience requirement in a report on a project designed to provide occupational experiences for distributive education teachers.

He pointed out, through a series of questions, a number of problems concerning the value and nature of work experience.

> First, why do state plans for vocational education invariably include trade experience among certification requirements of various vocational education personnel?
> Second, assuming the validity of the trade experience criterion, exactly how does experience in the occupation taught contribute to quality vocational education?

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[19] Fred Cook, "Office and Business Education Teacher Training Clinics" (Detroit: Wayne State University, 1966), p. 66. (Mimeographed.)

[20] Ibid.

> Third, what are the criteria for evaluating the occupational experiences of candidates for teacher certification?
>
> Fourth, is the value of trade experience of equal importance to instruction in all of the recognized vocational education fields?
>
> Fifth, does the occupational experience requirement that is super-imposed on other certification requirements, such as content, and general and special professional education courses, restrict the number of persons preparing to be vocational teachers?
>
> Finally, assuming the need for experience in the occupational field taught, what types of activities should be included in planning a student's program, both on the job and in school?[21]

There also appears to be concern about the means of achieving occupational experience. Tonne illustrated that concern when speaking at the 1967 National Seminar for Vocational Technical Teacher Education. The major problem, he stated, is obtaining occupational experience while getting a college degree. Since it is almost impossible to do both at the same time, he believes this occupational experience requirement will automatically lengthen the prospective teacher's preparation time. In addition, many states are now requiring an additional year of formal education for full certification.[22]

Tonne emphasized other problems associated with work experience requirements:

> There has developed a respect for business experience, as such, which transcends its value. Some experience in

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[21] Warren G. Meyer, "Pilot Training Project Based on Directed Occupational Experience for Teachers of Marketing and Distribution" (Minneapolis: University of Minnesota, 1967), pp. 177-78. (Mimeographed.)

[22] Tonne, "Trends and Problems in the Professional . . . ," op. cit., p. 32.

> business may be poor, untypical, or even false, and may do more harm than good as a background. It is true that usually a little experience is better than none. In some cases, however, teachers will assume that their limited experience is typical of all office or store practice and consequently misinform their students.[23]

In a study completed by Olsen, Lessenberry identified topics of concern relating to occupational experiences for business teachers. They included the amount of experience needed, the kinds of experience required, and when the experience should be scheduled.[24]

Hosler, in the same study, described an additional problem inherent in the concept of work experience requirements:

> The greatest problem with occupational experience is how to evaluate it. . . . It varies tremendously and just putting a person out in an office doesn't necessarily mean that it is profitable to any great degree. . . . Occupational experience is fine, but sometimes we put too many "eggs in that basket."[25]

The lack of research on the effects of various lengths of work experience or teaching effectiveness appears to be the concern of many vocational educators. Weber and Everett indicated that there is a need for research into the value of work experience:

> We have no evidence that any prescribed amount of work experience is a necessity for vocational personnel competency. It is conceivable that a perceptive teacher

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[23] Herbert A. Tonne, Principles of Business Education (New York: Gregg Publishing Div., McGraw-Hill Book Company, Inc., 1961), p. 485.

[24] Thelma N. Olson, "The Preparation of Teachers for Business Education as Viewed by Recipients of the John Robert Gregg Award in Business Education" (unpublished Doctor's dissertation, University of Nebraska, 1973), p. 90.

[25] Ibid., p. 89.

> without work experience may have "caught" more of the essence of current business from daily contact and professional reading than some plodder with 10 or even 15 years of experience.[26]

Another dimension of the issue of work experience for vocational teachers is presented by Sjogren. It may be that work experience is essential for teachers in some area and not required at all by others.[27]

Moss agreed with the premise of Sjogren and described a differentiated staffing concept requiring various levels of occupational expertise. The differentiated staffing approach involves "non-career personnel" and "career-oriented personnel." The non-career personnel would be technicians serving on a temporary basis within a vocational program. They may need highly specialized occupational skills to provide the technical knowledge within the program.

The career-oriented teacher, however, will be providing educational expertise within the instructional team. In that role a general technical background may be helpful but the highly specialized skills may be of little use. Moss concluded that:

> By the time workers become teachers the probability of their vigorously pursuing further education has been reduced considerably, and their worker value-orientation

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[26] Edwin J. Weber and Larry L. Everett, "Vocational Competency Examination for Preparatory Teachers and Teacher Coordinators in Vocational Business and Office Education" (Ann Arbor: Michigan University, 1970), p. 2. (Mimeographed.)

[27] Douglas Sjogren, Changing the Role of Vocational Teacher Education, eds. Rupert N. Evans and David R. Terry (Bloomington: McKnight and McKnight Publishing Company, 1971), p. 178.

> may be too rigid, as well as inappropriate, for their instructional roles.[28]

From the previous discussion, it can be concluded that opinions vary widely as to the advantages and disadvantages of types and amounts of occupational experience in the effective preparation of vocational teachers. Opinion does seem to be the prevalent base for discussion of the subject. However, one research study conducted by Brooks did delve into the relationship between related work experience and teaching effectiveness. He found that teachers with 2,000 hours or less of related work experience had the highest effectiveness scores; however, there was no statistical difference at the .05 level.[29] While a number of studies have been completed which include the amount of work experience as one of many variables influencing teacher effectiveness (Croom, Eggland, Carley, Musgrove, Samson, Schenk, Harris),[30] definitive studies have not been completed that specify the contributions of occupational experience to teacher performance.

A COMPETENCY BASE

The nature of vocational teacher performance has come under increasing scrutiny in recent years. Attention is being focused on the need to develop an objective base of performance requirements for vocational teachers. A 1973 report by the National Advisory Council on Education Prefessions Development called for the identification of techniques for measuring teacher performance. They conceded however that such a task is difficult because of the "lack of agreement on what constitutes a good teacher."[31]

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[28] Jerome Moss, Jr., "Assumptions Underlying Preservice Programs for Beginning Level Vocational Teachers," Changing the Role of Vocational Teacher Education, eds. Rupert N. Evans and David B. Terry (Bloomingtion: McKnight and McKnight Publishing Company, 1971), p. 54.

[29] Lloyd D. Brooks, "The Relationship Between Related Work Experience and Teaching Effectiveness of Vocational Office Education Teachers" (unpublished Doctor's dissertation, University of Tennessee, 1971), passim.

[30] See specific bibliographic citations.

A theoretical framework for research in the identification of teaching competencies was described by Potter:

> Performance based teacher education rests upon the assumption that there exists a causal relationship between certain patterns of teacher behavior and specifiable student outcomes. This relationship cannot be examined at all without our first defining and describing in behavioral terms the nature of the teaching performance to be studied, so that we can at least tell when the behavior has occurred--in other words, we must be able to measure teacher behavior at at least a nominal or categorical level.[32]

Rosner, as chairman of the Committee on National Program Priorities in Teacher Education, reported that measures of teacher competence must be designed to insure the validity of teacher-education curricula. An effective measure must show causal relationships between teacher performance and pupil development in terms of the stated outcomes.[33]

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[31] National Advisory Council on Education Professions Development, Vocational Education: Staff Development Priorities for the 70's--A Report (Washington: U. S. Government Printing Office, 1973), p. 116.

[32] David Potter, "A Research Strategy for Performance-Based Education" (Paper presented at the Annual Meeting of the American Educational Research Association, New Orleans, February, 1973), p. 2.

He predicted that "unless teacher education can determine which teacher competencies are related to which instructional objectives (and under what conditions), investment in teacher training is speculative."[34]

The advantages of a competency base for teacher preparation were analyzed by Daniels. Those advantages accrue to the prospective teacher, the teacher educator, and the employer of the teacher who completes the program. Expectations are explicit and available to the learner prior to the experience. The competencies provide a planning base for the teacher educator in terms of expected outcomes, instructional planning, and evaluation. And the potential employers can have a specific understanding of the competencies the prospective teacher possesses.[35]

Early efforts in identifying patterns of competencies were organized through the Southern States Cooperative Program in Educational Administration. They relied on the Critical Incidents and Job

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[33] Benjamin Rosner, The Power of Competency-Based Teacher Education: Report of the Committee on National Program Priorities in Teacher Education (Boston: Allyn and Bacon, 1972), pp. 8-9.

[34] Ibid.

[35] Fred K. Daniels, "'Performance Based' Does Not Mean a Teacher Education Program Is Good--It Just Means It Is Easier to Tell" (Quoted in Competency Based Teacher Education--The State of the Scene) (Washington: American Association of Colleges for Teacher Education, 1973), pp. 8-9.

Analysis Techniques to identify competency patterns.[36]

The most comprehensive competency identification research within vocational teacher education to date was completed at the Center for Vocational Technical Education at Ohio State University under the direction of Cotrell. The study identified the common professional competencies required of vocational teachers.

A four-step procedure was utilized to develop a model curriculum for vocational teacher education. Initially an occupational analysis was completed to identify pedagogical functions of teachers. Two hundred thirty-seven performance elements were identified through the procedure.

The initial list of performance elements was then expanded and verified through a task force evaluation and a critical incident survey. Final refinement of the competency list was completed through introspection and interviews resulting in 390 performance elements. These elements were then translated into performance-oriented general objectives.[37]

In a study completed by Crawford, professional and technical competencies needed by distributive education teachers were identified. The initial step in the project was to develop a set of basic beliefs about distributive education through the use of a variation of the Q-sort methodology. Based on the basic beliefs generated, selected teacher educators, state supervisors, and teacher-coordinators were interviewed to ascertain critical tasks of distributive education teachers.

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[36] Southern States Cooperative Program in Educational Administration, Regional Action for Professional Progress, Volume XXIX, Number 2 (Lexington: University of Kentucky, 1956), pp. 5-6.

[37] Calvin Cotrell et al., Model Curricula for Vocational and Technical Teacher Education: Report No. I Performance Requirement for Teachers, Final Report (Columbus: Ohio State University, 1971), p. 143.

The critical tasks were translated into competency statements and evaluated by teacher educators in order to refine the list of professional competencies.

Technical competencies were identified through interviews with workers and supervisors employed in distributive occupations, and the competencies were then evaluated by selected teacher educators to complete the lisiting of competencies required by distributive teachers.[38]

Other competency identification studies that provide useful models have been completed in specific vocational areas. Kessell used a personal interview technique to identify critical incidents for secondary-level business teachers. The sample for the study was drawn from business teachers and school administrators.[39]

Samson, in studying performance requirements for high school distributive education teacher-coordinators, also used a critical incident technique. However, four groups were used to report incidents--students, teachers, administrators, and business persons who had provided training for distributive education students.[40]

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[38] Lucy C. Crawford, A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education. Vol. I, Final Report (Blacksburg: Virginia Polytechnic Institute, 1967), p. 335.

[39] Robert M. Kessell, "The Critical Requirements for Secondary School Business Teachers Based upon an Analysis of Critical Incidents" (unpublished Doctor's dissertation, University of Wisconsin, 1957), passim.

A study in trade and industrial education by Walsh utilized a competency list refined by a panel of experts. That list was then validated through the use of a questionnaire by teachers, teacher-educators, and trade and industrial education program supervisors from the local and state levels.[41]

The general design of competency identification studies, while not following a consistent pattern, appears to include techniques such as job analysis, critical incident measures, personal interviews, panels of experts, opinion rankings, and literature reviews. Populations utilized in validating competencies range from teachers, supervisors, administrators and teacher educators to students, and businesspersons.

THE DELPHI TECHNIQUE

In clarifying values, individual opinion seems to be the main factor. Nearly all important decisions involve some value judgments along with the use of hard facts or well-founded theory. Obtaining judgments from a group of experts in a face-to-face situation has not been successful because of the dominance of individuals with noted reputations and because of the ability of some individuals to speak more convincingly than others.

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[40] Harland E. Samson, "The Critical Requirements for Distributive Education Teacher-Coordinators" (unpublished Doctor's dissertation, University of Minnesota, 1964), passim.

[41] John P. Walsh, "Qualifications, Preparation and Competencies of Trade and Industrial Teachers" (unpublished Doctor's dissertation, The George Washington University, 1958), passim.

Olaf Helmer, a pioneer in the use of the Delphi Technique, stated:

> The Delphi technique eliminates the need of committee activity altogether, thus further reducing the influence of certain psychological factors, such as specious persuasion, the unwillingness to abandon publicly expressed opinions, and the bandwagon effect of majority opinion.[42]

The Delphi Technique, as Helmer described, is a means of obtaining a consensus through the use of a sequence of questionnaires, which derive information from a group of experts on an anonymous basis and feed the collection of information back to the group. The feedback is used in an attempt to get people to reconsider and/or defend their beliefs in order to bring about a group consensus.

This technique, which was originally used in the military, has more recently been applied in business and educational settings for forecasting and in situations where it was appropriate to obtain a consensus of experts.

In assessing the Delphi Technique, Dalkey and Rourke found through the use of a number of experiments that:

> For subject matters where the best available information is the judgments of knowledgeable individuals, a systematic

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[42] Olaf Helmer, Social Technology (New York: Basic Books, Inc., 1966), p. 17.

[43] Ibid.

> and controlled process of querying and aggregating the judgments of members of a group has distinct advantages over the traditional group discussion.[44]

Among the major advantages of the Delphi Technique, as identified by Dalkey and others, is the ability to obtain group responses without assembling the group in a face-to-face situation. Experiments have shown that the excellence of group judgment depends not solely on the knowledge of each group member, but on the way the individual judgments are put together.[45]

Dalkey identified the specific techniques of anonymous responses and controlled feedback as benefits of using the Delphi method:

> Anonymity, effected by the use of questionnaires or other formal communication channels, is a way of reducing the effect of dominant individuals. Controlled feedback--conducting the exercise in a sequence of rounds between which a summary of the results of the previous round are communicated to the participants--is a device for reducing noise. Use of a statistical definition of the group response is a way of reducing group pressure for conformity; at the end of the exercise there may still be a significant spread in individual opinions. Probably more important, the statistical group response is a device to assure that the opinion of every member of the group is represented in the final response.[46]

The Delphi method which is used to "cream the tops of the heads" of the group of experts involves less effort than gathering these people together for a conference, but it can still be a highly motivating experience for the participants.[47]

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[44] Norman C. Dalkey and Daniel L. Rourke, Experimental Assessment of Delphi Procedures with Group Value Judgments (Santa Monica: The RAND Corporation, February, 1971), p. 1.

[45] Norman C. Dalkey, and others, Studies in the Quality of Life (Lexington: Lexington Books, 1972), pp. 4-5.

[46] Ibid., p. 21.

Further values of the Delphi Technique suggested by Dalkey include interesting feedback for the group, objective outcomes, and a sharing of responsibility in an uninhibited situation.

The Delphi Technique, which utilizes some unique methods for collecting opinions, can be best described by referring to a specific example presented by Olaf Helmer:

> I use as an illustration one based more or less on an actual case that arose in the course of an inquiry into the future of automation. Each member of a panel of experts on this subject was asked, among other things, to estimate the year when a machine would become available that would comprehend standard IQ tests and score above 150. The procedure consists of four rounds of questionnaires, asking for successive refinements in the estimated answer to the given question. In each round after the first, some information feedback on the outcome of the previous round is provided. In particular the respondents are informed of the previous response distribution in terms of its median and its so-called interquartile range (that is, the interval containing the middle 50 percent of the responses).
>
> A further characteristic of the procedure is that it is designed to generate what may be thought of as an anonymous debate. Thus, in the second round, if a respondent's revised answer falls outside the interquartile range, he is required to state briefly why he thought that the event would occur that much earlier (or that much later) than the majority seemed to think. The effect of thus placing the onus of having to justify relatively extreme opinions on the respondents typically has the following effect . . .: those without strong convictions tended to move their estimates closer to the median, while those who felt they had a good argument for a deviant opinion tended to retain their original estimate and defend it.
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> In the third round the respondents were given a concise summary of such reasons in support of extreme positions,

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[47] Ibid.

> and asked to base any revision of their extimates on due consideration of these reasons, giving them whatever weight they thought was justified. Moreover, if a respondent's revised answer fell outside the (new) interquartile range, he was required to state why he was unpersuaded by the opposing argument.
>
> In the fourth round, similarly, these counter-arguments were fed back to the entire group, giving rise to one last chance for reestimating the date of occurrence.
>
> . . . . In this example the procedure--presumably under the influence of convincing arguments--caused the median (which originally had been the year 2020) to move to a much earlier date and the interquartile range (originally extending from 2000 to 2100) to shrink considerably.
>
> A convergence of opinions has been observed in the majority of cases where the Delphi approach has been used.[48]

As previously stated, the Delphi Technique is generally used to obtain a consensus among experts in a particular subject. Expert judgment, based on intuition and insight, is a significant factor in the success of the Delphi Technique in obtaining a consensus. In discussing the selection of experts, Olaf Helmer suggested that this process of defining who is an expert in a given field is in itself a major task which includes the determination of which categories of experts are needed and the determination of who has the most expertise in those categories.[49]

Although few people have described the qualifications needed to make one an expert, Helmer suggested that a person should be qualified in terms of performance "such as years of professional experience, number of publications, and status among his peers."[50]

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[48] Olaf Helmer, Systematic Use of Expert Opinion (Santa Monica: The RAND Corporation, November, 1976), p. 2.

[49] Helmer, Social Technology, op. cit., p. 13.

Because of the difficulty many researchers have had in selecting experts, it is interesting to note that Helmer, through experiments, has found that:

> An expert's self-appraisal of his relative competence in different areas of inquiry may be well-enough correlated with his actual relative performance in these areas to be of significant aid in selecting experts for specific tasks.[51]

In addition to new methods of selecting experts, research has been continued in an effort to develop other improvements in the technique.

One of the refinements which Helmer explained was the use of "subsidiary questions." The respondents are invited to add subsidiary questions or statements to the first round questionnaire. These questions or statements can then be added to the second questionnaire, or they can bring about a separate Delphi inquiry.[52]

Another refinement is that of weighting the various experts' opinions based on each expert's degree of conpetence. In developing this technique, Olaf Helmer found that the main problem with it was that it was nearly impossible to measure objectively the competence of each expert. Without objective measures to rely on, he found the use of "experts' subjective self-appraisal" to be worthwhile. A description given by Helmer of this procedure is as follows:

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[50] Ibid., p. 15.

[51] Ibid.

[52] Helmer, Systematic Use of . . . , op. cit., p. 7.

> In addition to going through four rounds of Delphi arguments, the respondents were asked to rank the indices under consideration with respect to the competence they felt in estimating their future values. Then, instead of using for each index the median of all twenty final responses as the group consensus, and thus as the group's prediction for the following year, only the responses of those individuals were taken who had ranked their competence regarding that index relatively most highly, and the median of just these forecasts was then used as the group consensus.[53]

The Delphi Technique has been proven through research to be a useful procedure for collecting expert opinion. It appears to be an appropriate method of collecting data when individual judgments must be an important factor in making a decision.

THE LIKERT-SCALING TECHNIQUE

The value of using scaling methods to obtain information about attitudes is that, instead of obtaining just a favorable or unfavorable attitude on an issue, one can obtain a fairly accurate measure of the degree of favorableness or unfavorableness toward an issue.

In discussing methods of obtaining information concerning personal attitudes, Moser and Kalton stated:

> The simplest way of "measuring" the strength of a person's attitude is to ask him to rate that strength himself. This can be done in a number of ways. The easiest perhaps is to present him with a number of attitude statements of varying intensity . . . . Or one may give him a single statement but offer a number

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[53] Ibid.

> of possible answers, say ranging from "strongly against" to "strongly in favor."[54]

With Likert-scaling techniques, the respondents are asked to indicate their degree of agreement or disagreement along a numbered scale. As Moser and Kalton explained:

> The respondent is not asked to decide just whether he agrees or disagrees with an item, but rather to choose between several response categories, indicating various strengths of agreement and disagreement. The categories are assigned scores and the respondent's attitude is measured by his total score, which is the sum of the scores of the categories he has endorsed for each of the items. Reflecting these main characteristics of Likert scaling, the scales are also known as summated and summated rating scales.[55]

In discussing the number of scale points to be used on a rating scale, Moser and Kalton indicated that a scale too finely divided will provide incomprehensible distinctions while a scale too coarsely divided will make it hard to differentiate between them. They found that five to seven categories are most often used. In choosing between the use of an odd or an even number of categories, one must decide whether it is more important to use an odd number which gives the respondents the choice of a neutral position in the middle, or to use an even number which forces the respondents to align themselves on one side or the other of a neutral position.[60]

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[54] C. A. Moser and G. Kalton, Survey Methods in Social Investigation (New York: Basic Books, Inc., 1972), pp. 358-59.

[55] Ibid., pp. 361-62

[60] Moser and Kalton, op. cit., pp. 358-59.

The processes involved in developing and using Likert scales have some built-in advantages and disadvantages.

The advantages of Likert scales cited by Liggett and Cochrane are: (1) their simplicity of construction, (2) their high reliability, (3) their allowance for "subtle shades" of behavior, and (5) their ability to spread people well out along a scale.[63]

Intrinsic disadvantages of Likert scales have also been cited. Moser and Kalton, in discussing the rating scale points, believed there are problems involving central tendency and halo effect. Most people do not like to choose extreme positions, so this in effect reduces the number of scale points for them to choose between. Because people are more comfortable choosing middle positions, this is called the "error of central tendency." The halo effect occurs when respondents classify each item on a questionnaire on the basis of their general impression rather than on the meaning of each item.[64]

Liggett and Cochrane suggested that another disadvantage is "their researchers' tendency to set up an unnatural frame of reference for the respondent because of their rigid forced-choice alternative questions."[65]

A characteristic weakness of the Likert scale is that it is an ordinal measurement scale. As an ordinal scale, Moser and Kalton explained that it can only place objects in rank order (high to low, or low to high, for example) along a continuum, but it does not imply equal distance between the ranks.[66]

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[63] John Liggett and Raymond Cochrane, Exercises in Social Science (London: Constable and Company, Ltd., 1968), pp. 127-29.

[64] Moser and Kalton, op. cit., pp. 358-59.

[65] Liggett and Cochrane, op. cit., p. 129.

Sellitz and others emphasized that the Likert scale does not tell how much more favorable one point along the scale is than another point on the same scale. Neither does it provide a basis for measuring the amount of change in attitude after some experience.[67]

As a technique for collecting data on social attitudes, the Likert scale is widely used because of its demonstrated value as a reasonable reliable measure of a respondent's actual position on the attitude scale.

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[66] Moser and Katon, op. cit., p. 352.

[67] Sellitz and others, op. cit., p. 369.

CHAPTER 3

PROCEDURE OF THE STUDY

The procedure of the study consisted of two distinct phases designed to accomplish the two objectives. The first procedure was designed to identify and develop agreement on the purposes of occupational experience requirements for vocational teachers. The purpose of the second stage of the study was to verify the teaching competencies needed by vocational education teachers that can be developed through occupational experiences.

IDENTIFICATION OF PURPOSES

In order to identify the purposes of occupational experience for vocational teachers, a modified Delphi technique was selected as the research technique. The Delphi technique is a means of collecting individual opinion in an anonymous fashion in order to obtain a group consensus. The technique relies on a series of questionnaires which obtain information from participants and feed the collected data back to group members for further consideration. The Delphi technique was used in this study to allow a group of experts in distributive education and business and office education to examine the purposes of occupational experience as a requirement for vocational education teachers.

Development of Instruments

A comprehensive literature review was completed to develop an original listing of purposes of occupational experience. Purpose statements were identified from research studies in vocational education and the opinions of vocational educators as represented in journals and textbooks. The selected purposes were synthesized to provide a final list of purposes that was representative of the reviewed literature. Seventeen purpose statements were thus identified to be used in the first round of the Delphi procedure.

A five-point Likert scale was developed to collect the opinions of Delphi panel members on each of the purpose statements. The five-point scale allowed participants to select a response ranging from strongly disagree to strongly agree on each of the statements.

The five points of the scale and their descriptions were:

1. Strongly disagree--This definitely is not a purpose of occupational experience.
2. Disagree--This probably is not a purpose of occupational experience.
3. Undecided.
4. Agree--This probably is a purpose of occupational experience.
5. Strongly Agree--This definitely is a purpose of occupational experience.

Selection of Delphi Panels

Two Delphi panels were selected to participate in the first phase of the research study. One panel consisted of state supervisors and teacher educators in distributive education and the other consisted of state supervisors and teacher educators in business and office education. Since teacher educators and state supervisors are involved in the pre-service and inservice preparation of distributive and business and office education teachers and are the primary decision-makers for such programs, the researchers determined that those populations provided the needed expertise to determine the purposes of occupational experience for vocational teachers.

In order to develop the distributive education Delphi panel, a random sample of eighteen teacher educators and eighteen state supervisors was selected form 1975 national listings of distributive education teacher education and state supervisory personnel provided by the Division of Vocational and Technical Education, U.S. Office of Education.[1] A random sample of the population was used to insure that a cross-section of current opinion and philosophy regarding the topic might be identified within the sample chosed for the Delphi panel. Those selected were contacted by letter (See Appendix A) to solicit their participation in the study. Follow-up telephone calls were used to confirm their participation and answer questions about the Delphi procedure. All thirty-six persons initially agreed to participate and were mailed the first Delphi questionnaire. Of the thirty-six original members, sixteen teacher educators and seventeen state supervisors (91.7 percent) completed all three rounds of the Delphi procedure. (See Appendix C).

The second Delphi panel was randomly selected from the populations of business and office education state supervisors and teacher educators in the United States. Twenty names of vocational teacher educators and twenty names of state supervisors were randomly chosen from lists of personnel in each category. A list of state supervisors in business and office education was obtained from the National Association of State Supervisors in Business and Office Education; a list of teacher educators in business and office education was obtained from the Region X Branch of the U.S. Office of Education in Seattle, Washington.

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[1] Bureau of Occupational and Adult Education, Division of Vocational and Technical Education, State Supervisory and Teacher Education Personnel for Distributive Education, Office of Education, (Washington, D. C.: U. S. Department of Health, Education, and Welfare, October, 1975).

Each of the forty people was sent a letter (See Appendix B) describing the study, the Delphi Technique, and the amount of time involved. These 40 people were then contacted by telephone to ask if they felt qualified and if they were willing to participate. Sixteen state supervisors and fourteen teacher educators in business and office education agreed to participate in this study (See Appendix C) All persons who originally agreed to participate in the study completed the three rounds of the Delphi procedure.

Collection of Data

The original questionnaire was mailed to each participant with a cover letter, instruction sheet, and postpaid return envelope. (See Appendices A and B) The questionnaire consisted of seventeen purpose statements and five-point Likert scale. Participants were asked to 1) evaluate each of the purpose statements using the Likert scale, 2) revise or reword the purpose statement if desired, and 3) add any additional purposes for panel members to consider in future rounds. Follow-up telephone calls were made to participants who had not returned questionnaires within two weeks.

When all questionnaires had been received, frequencies and mean scores were computed for each of the purposes. If two or more participants suggested a similar change in the wording of a purpose, the change was made. New purposes were developed if two or more participants suggested a similar statement.

A second questionnaire was developed from the data collected. The second Delphi round materials consisted of a cover letter, an instruction sheet, s summary of first round responses, (mean scores and frequency of responses), a new questionnaire, and a postpaid return envelope. (See Appendices A and B) Participants were asked to review the summary of responses from round one and then complete the second questionnaire. If their response on the questionnaire was different from the majority response on the previous questionnaire, participants were asked to write a justification of their opinion. In addition to responding to the purpose statements on a five-point Likert scale, participants were asked to reword the statements if desired and add any additional purposes for panel members to consider. Follow-up telephone calls were made to participants who had not returned questionnaires within two weeks.

Frequencies and Mean scores were again computed for each of the purposes. The standards identified in round one were used to make changes in wording or to add additional purposes. If consensus was achieved on a purpose statement, the statement was eliminated from consideration in the next round.

Standards for consensus were established by the researchers prior to initiating the Delphi procedure. That standard allowed one participant to be undecided or disagree with the majority opinion. All other participants must be in total agreement on the purpose in order for consensus to be achieved.

A third questionnaire was developed from the data collected in the second Delphi round. The materials mailed in round three consisted of a cover letter, an instruction sheet, a summary of second round responses (mean scores, frequency of responses, and justification statements), a new questionnaire, and a postpaid return envelope. (See Appendices A and B) Participants were asked to review the summary of responses from round two and then complete the third questionnaire by indicating their degree of agreement or disagreement on a five-point Likert scale. If the response on any item was different from the majority response on that item obtained on the previous questionnaire, the participant was asked to write a justification of that opinion. In the third round participants were not allowed to reword statements or add additional purpose statements. Follow-up telephone calls were made to all participants who had not returned questionnaires within two weeks.

VALIDATION OF COMPETENCIES

The second stage of the study was designed to determine the importance of occupational experience in developing teaching competencies needed by vocational education teachers. Several studies have been completed which identify such competencies. One study completed by Cotrell and others verified 384 performance elements as essential to the role of vocational teacher. The study was completed by using a national sample of vocational education personnel from all vocational service areas.[2] Because of the design which utilized several methods of identifying and verifying competencies, the national scope of the study, its general acceptance within vocational education, and its attention to all service areas, the performance elements identified within the study were selected as the base for determing the impact of occupational experience on vocational education teaching competencies.

Development of Instruments

The comprehensive identification and validation of performance elements identified above was completed by Cotrell and others in 1972. That listing of 384 performance elements was refined in a continuation of the research project into 100 competency statements.[3] The 100 competencies were classified within ten major components of the vocational teacher's role. (See Appendix D) Those competencies were used as the basis for validating the impact of occupational experience on the development of teaching competencies needed by vocational teachers.

A seven-point Likert scale was developed to collect the opinions of participants. The seven-point scale was selected in order to refine the opinions of respondents as much as possible regarding the impact of occupational experience on specific teaching competencies. Descriptions of each of the seven positions on the scale are:

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[2] Cotrell, Calvin J. and others, Model Curricula for Vocational and Technical Teacher Education: Report No. I-V, Performance Requirements for Teachers, Final Report, (Columbus: Ohio State University, 1972).

[3] Performance Based Curricula Program, Vocational Teacher Competency Profile, (Columbus, Ohio: Ohio State University, The Center for Vocational Education, 1975).

1. Strongly Disagree--There is absolutely no relationship between occupational experience and the development of this skill.
2. Disagree--Occupational experience is not important in the development of this skill.
3. Partially Disagree--Occupational experience probably does not contribute to the development of this skill.
4. Undecided.
5. Partially Agree--Occupational experience may contribute to the development of this skill.
6. Agree--Occupational experience is important in the development of this skill.
7. Strongly Agree--Occupational experience is absolutely essential in the development of this skill.

A series of demographic questions were developed to be used in analyzing the opinions of participants. Those characteristics included length and recency of occupational experience, years of teaching experiences, educational degrees completed, and a definition of the participant's current job.

The questionnaire was field tested by twenty persons including vocational education teachers from Nebraska and vocational teacher educators from the University of Nebraska. As a result of the field test, the competency list was refined to ninety-five statements for the final questionnaire. (See Appendix G)

Selection of Participants

The teaching competencies which can be developed through occupational experience were validated by two separate groups composed of distributive education personnel and business and office education personnel. The three major classifications of distributive education and business and office education personnel--teachers, teacher educators, and state supervisors--were utilized as populations for the competency validation phase of the research. These populations were chosen in order to gather data from all elements of distributive education and business and office education personnel as well as to determine if any significant differences of opinion existed among the three groups.

Random samples of 15 percent of the distributive education teachers and 15 percent of the business and office education teachers were drawn from their respective populations in the state of Colorado, Iowa, Kansas, Minnesota, and Missouri. The population in each of the states consisted of all secondary and postsecondary distributive and business and office education teachers meeting the requirements for teaching established by the respective state departments of education and currently teaching in a distributive education program or business and office education program in that state. Lists of teachers were provided by state supervisors in each state. Samples of secondary and postsecondary teachers from each state were selected separately to insure proportionate representation of each population in the sample. Samples were randomly selected using a table of random numbers.[4]

Random samples of distributive education teacher educators and state supervisors were selected from the 1975 national listings of teacher educators and state supervisors provided by the Division of

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[4] Kendall, M. C. and B. Babington Smith, Tables of Random Sampling Numbers, (Cambridge, England: Cambridge University Press, 1939).

Vocational and Technical Education, U. S. Office of Education.[5] Because of the relative size of those populations compared to the previously identified populations of teachers, 30 percent of each population was randomly selected.[6] The National Association of State Supervisors of Business and Office Education provided a list of state supervisors from which 58 were randomly selected as participants. This number represented all persons with a title of state supervisor; it did not represent those persons with a title of district supervisor.

From a list of teacher educators in business and office education obtained from the Region X Branch of the U. S. Office of Education in Seattle, Washington, 54 teacher educators were selected as participants. Those persons who had participated in the first stage of the study were eliminated to avoid any bias that might result from that participation.

Collection of Data

The competency-validation questionnaire was mailed to each member of the random sample with a cover letter, instruction sheet, and a postpaid return envelope. Participants were asked to respond to each competency statement using a seven-point Likert scale. In addition, responses were requested on demographic items. Return envelopes were coded for purposes of follow-up on unreturned questionnaires. Three weeks after the initial mailing, follow-up letters were sent to all persons in the sample who had not returned the questionnaire. (See Appendix E)

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[5] Bureau of Occupational and Adult Education, Division of Vocational and Technical Education, op. cit.

[6] Kendall, M. C., op. cit.

A random selection of returned questionnaires was made to provide a proportionate stratified sample for data analysis. The final sample consisted of a 10 percent sample of each state's population of distributive education teachers and a 20 percent sample of the national populations of distributive education state supervisors and teacher educators.

Returns from 10 percent of the total number of secondary and postsecondary business and office education teachers in each of the five states were utilized for statistical analyses. All questionnaires returned by business and office education state supervisors and teacher educators were utilized because the sizes of these two populations were small compared to the populations of secondary and postsecondary teachers.

ANALYSIS OF DATA

Purpose Statements

At the conclusion of round three of the Delphi procedure, frequencies and mean scores were computed for each of the purposes. Those statements which had not received a consensus from panel members were eliminated and the remaining purpose statements were then ranked in order of importance using the mean score of each statement obtained through the Delphi procedure. The data from the two Delphi panels was collected and analyzed separately.

Teaching Competencies

A frequency distribution was developed, and mean scores were calculated for each of the competency statements. Rank orders of competency statements were developed for each population in the study. In addition, mean scores were computed for each of ten components or factors of a vocational teacher's role by accumulating the responses of all competency statements relating to each component. The components were then ranked in a hierarchy of importance using the mean scores.

A Pearson product moment correlation was computed on each of the ten components to determine if significant relationships existed between the opinions of respondents and their years of teaching experience, years of distributive education or business and office education teaching experience, years of occupational experience, years of occupational experience in distributive or business and office occupations, the recency of occupational experience, or level of educational attainment.

Rankings of the ten components were determined for each of the respective samples of distributive education and business and office education teachers, teacher educators, and state supervisors using mean scores. The rankings of the groups were then compared using the Spearman rank-order correlation to determine if significant differences of opinion existed among the groups.

A multivariate analysis of variance was used to test if significant differences existed in the responses of participants based on the type of job currently held or the nature of that job. Distributive education data and business and office education data were analyzed separately.

All statistical tests were completed using an IBM 360 series computer at the Lincoln Computing Facility, University of Nebraska, and programs from the Statistical Package for the Social Sciences.[7]

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[7] Nie, Norman H. and others, Statistical Package for the Social Sciences, (New York: McGraw-Hill Book Company, 1975).

Chapter 4

ANALYSIS AND INTERPRETATION OF DATA

This chapter contains an analysis and interpretation of the data collected during the two phases of the study. The first part of the chapter contains a presentation and discussion of data collected utilizing a modified Delphi procedure which was designed to determine the purposes of occupational experience for vocational education teachers. The second part of the chapter contains a detailed analysis of the data collected to determine the teaching competencies that can be developed through occupational experiences.

PURPOSES OF OCCUPATIONAL EXPERIENCE

Participants in the first phase of the study were asked to react to a series of purpose statements using a modified Delphi procedure as described in Chapter 3. On each of three questionnaires, participants ranked each of the purposes on a five-point scale. The five points of the scale were: Strongly Disagree, Disagree, Undecided, Agree, and Strongly Agree. To compute mean scores for each of the purposes, the five points of the scale were given numberical values as shown in Table 1.

Table 1

Numerical Values Assigned to the Five-Point Scale on Delphi Questionnaires

Original Scale	SD	D	U	A	SA
Numerical Values	1	2	3	4	5

A mean score of 4.50, for example, would indicate that the average of all responses was between Agree and Strongly Agree. A mean score of 2.50 would indicate an average response between Disagree and Undecided.

Each of the purpose statements has been analyzed individually. Each statement is numbered as it appeared on the first questionnaire. Additional statements were added in Questionnaire II, and these were numbered as they appeared in the second questionnaire. Each statement is followed by an analysis of responses to that statement. The analysis includes the frequency of responses on each point of the Likert scale for each of the three Delphi rounds and the mean score of the responses on each questionnaire.

On Questionnaires II and III, participants were asked to justify their responses if they differed from the responses of the majority of participants in the previous round. Those comments have been summarized and are listed in Appendices A & B.

The data obtained from the Distributive Education panel and the Business and Office Education panel are analyzed separately in the following two sections.

Distributive Education Delphi Panel

Purpose Statement 1 - To Develop Confidence In One's Abilities and Skills.

There was initial strong agreement to this statement as only one participant disagreed and three were undecided. Opinions converged on the second questionnaire, and consensus was achieved with a final mean score of 4.41 as shown in Table 2.

Table 2

Summary of Responses to Purpose Statement 1: To Develop Confidence in One's Abilities and Skills

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	1	3	13	17	4.35
II	0	0	0	18	13	4.41
III	a					

[a] A consensus was achieved after round two

Purpose Statement 2 - To Provide a General Knowledge and Understanding of the Nature and Requirements of Specific Occupations.

Statement 2 received the highest level of agreement of all statements on the first Delphi round with a mean score of 4.62. That level of agreement increased further in the second round as consensus was achieved with twenty-nine of the thirty-one participants indicating strong agreement with the purpose. The data are shown in Table 3.

Table 3

Summary of Responses to Purpose Statement 2: To Provide a General Knowledge and Understanding of the Nature and Requirements of Specific Occupations

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	1	0	8	25	4.62
II	0	0	0	2	29	4.93
III	a					

[a] A consensus was achieved after round two

Purpose Statement 3 - To Integrate Theory Learned in School with Actual Practice on a Job.

There was continuing disagreement through the three rounds of the Delphi procedure on Statement 3. While the mean score increased in the second round, a number of participants moved from the Strongly Agree to the Agree response in the third round and the mean score decreased to near its original value as shown in Table 4. Because two participants disagreed with the statement, consensus was not achieved. (Refer to Chapter 3 for a definition of consensus.)

Table 4

Summary of Responses to Purpose Statement 3:
To Integrate Theory Learned in School With
Actual Practice on a Job

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	1	7	24	4.56
II	0	1	2	2	26	4.71
III	0	2	0	7	22	4.58

Purpose Statement 4 - To Develop, Improve, Apply, and/or Integrate Technical Competencies of an Occupation.

The mean score increased on each successive questionnaire for this statement. The initial disagreement did not appear to be very strong as it changed to strong agreement by the final round. The data in Table 5 show that thirty of thirty-one participants ranked Statement 4 in the Strongly Agree category in the third round resulting in a mean score of 4.96.

Table 5

Summary of Responses to Purpose Statement 4:
To Develop, Improve, Apply, and/or
Integrate Technical Competencies
of an Occupation

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	1	10	21	4.47
II	0	0	2	1	28	4.84
III	0	0	0	1	30	4.96

Purpose Statement 5 - To Obtain an Overall Picture of the Organization of a Business.

Most opinions were divided between the Agree and Strongly Agree categories for Statement 5. The mean score changed very little from round one to round two. Consensus was achieved in round two although a mean score of 4.41 indicated that less value was placed on this statement by a number of participants than on other purpose statements. The data are shown in Table 6.

Table 6

Summary of Responses to Purpose Statement 5:
To Obtain an Overall Picture of the
Organization of a Business

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	1	1	16	16	4.38
II	0	0	0	18	13	4.41
III	a					

[a] A consensus was achieved after round two

Purpose Statement 6 - To Learn About New Technologies in Business and Industry.

Participants generally agreed with Statement 6 but were divided in the strength of that agreement as shown in Table 7. At the end of the second round there was no disagreement with the statement, and two participants had moved to the Strongly Agree category. Consensus was achieved at the end of the second Delphi round with a resulting score of 4.61.

Table 7

Summary of Responses to Purpose Statement 6:
To Learn About New Technologies in
Business and Industry

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	1	1	15	17	4.41
II	0	0	0	12	19	4.61
III	a					

[a] A consensus was achieved after round two

Purpose Statement 7 - To Develop a Philosophy of Work.

While consensus was achieved on Statement 7 at the end of round three, the rankings of several participants changed during the Delphi procedure indicating a lack of commitment to their original opinions. The number of respondents with strong agreement to the purpose decreased sharply as opinion centered on the Agree category. Concern was expressed in the comments of participants that a philosophy of work could not be effectively developed during the limited duration or context of a vocational teacher's occupational experience. The mean score remained relatively low in the Agree categories throughout the Delphi procedure as shown in Table 8.

Table 8

Summary of Responses to Purpose Statement 7:
To Develop a Philosophy of Work

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	2	14	16	4.29
II	0	0	2	15	14	4.39
III	0	0	1	20	10	4.29

Purpose Statement 8 - To Experience the Actual Stress, Pressures, Frustrations, and Sense of Achievement That are Part of Every Job.

Strong initial agreement with Statement 8 was expressed by participants, and that agreement increased in round two. The mean score increased from 4.59 to 4.93 and all but two participants ranked the purpose in the Strongly Agree category in the second round. Participants' responses indicated a strong belief in the affective value of occupational experience for vocational teachers. The supporting data are shown in Table 9.

Table 9

Summary of Responses to Purpose Statement 8:
To Experience the Actual Stress,
Pressures, Frustrations, and
Sense of Achievement That
are Part of Every Job

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	0	8	24	4.59
II	0	0	0	2	29	4.93
III	a					

[a] A consensus was achieved after round two

Purpose Statement 9 - To Understand and Use the Language of the Business World.

The response pattern of participants to Statement 9 was very similar to that of Statement 8. Mean scores on both statements increased from 4.59 in round one to 4.93 in round two. All but two participants responded in the Strongly Agree category in round two on Statement 9. The commitment to a good base of knowledge of the business world appears to exist in the responses of participants. The data are shown in Table 10.

Table 10

Summary of Responses to Purpose Statement 9:
To Understand and Use the Language of the
Business World

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	0	0	14	20	4.59
II	0	0	0	2	29	4.93
III	a					

[a] A consensus was achieved after round two

Purpose Statement 10 - To Obtain Information About Current Business Standards.

Opinions of participants remained divided between the Agree and Strongly Agree categories on Statement 10. Consensus was reached on the second round of the Delphi procedure; but the mean score remained relatively low at 4.38, suggesting that many participants viewed the statement as a purpose, but not an essential purpose of occupational experience. As shown in Table 11, seventeen participants believed that obtaining information about current business standards probably was a purpose of occupational experience and one participant remained undecided.

Table 11

Summary of Responses to Purpose Statement 10: To Obtain Information About Current Business Standards

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	2	15	15	4.26
II	0	0	1	17	13	4.38
III	a					

[a] A consensus was achieved after round two

Purpose Statement 11 - To Understand the Relationships Among Businesses.

Some indecision on the part of participants occurred in round one resulting in a mean score of 3.85. A clarification of wording was suggested in round two and accepted by the participants. The reworded statement was, "To understand the relationships that occur among businesses." After the revised wording was included, the majority opinion centered in the Agree category. Consensus was achieved in round three but with a mean score of 4.00, suggesting a great deal of uncertainty among participants as to the value of the purpose.

Table 12

Summary of Responses to Purpose Statement 11: To Understand the Relationships That Occur Among Businesses

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	2	6	20	5	3.85
II	0	0	2	27	2	4.00
III	0	0	2	29	1	4.00
			1			

Purpose Statement 12 - To Become Acquainted With Resource Materials and People in Business.

Statement 12 was reworded after round one. The revised wording was, "To become acquainted with resource materials and people in business that can be utilized in the classroom." The mean score decreased on each successive round of the Delphi procedure moving from 4.23 in round one to 4.09 in round three. However, consensus was achieved in round three with twenty-eight participants responding in the Agree category and three participants responding in the Strongly Agree category. The data are shown in Table 13.

Table 13

Summary of Responses to Purpose Statement 12: To Become Acquainted With Resource Materials and People in Business That Can Be Utilized in the Classroom

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	3	0	17	14	4.23
II	0	2	0	19	10	4.19
III	0	0	0	28	3	4.09

Purpose Statement 13 - To Develop Work Habits That Have Broad Application to the Jobs They Will Hold During Their Lifetime.

Opinion was divided on Statement 13. The mean score decreased during each round from 3.50 in round one to 3.29 in round three. As shown in the comments accompanying this discussion, opinions were strongly supported on both sides of the issue. An attempt at clarification occurred when the word "teacher" was inserted to replace "they" in the original statement and "during their lifetime" was eliminated, but it had no appreciable impact on the opinions of participants. The purpose statement was not accepted by the participants as opinion was still divided after round three. However, some consolidation of opinion did occur during the three rounds showing the impact of the Delphi procedure. The data are shown in Table 14.

Table 14

Summary of Responses to Purpose Statement 13: To Develop Work Habits That Have Broad Application to the Jobs the Teacher Will Hold

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	2	10	1	11	10	3.50
II	2	8	4	11	6	3.35
III	0	10	3	17	1	3.29

Purpose Statement 14 - To Develop Interpersonal Skills Involving Relations With Fellow Workers, Supervisors, and Clients.

The development of interpersonal skills is an important purpose of occupational experience according to the responses of participants to Statement 14. The mean score increased from 4.50 to 4.83, and in round three twenty-eight of thirty-one participants ranked the statement in the Strongly Agree category as shown in Table 15.

Table 15

Summary of Responses to Purpose Statement 14:
To Develop Interpersonal Skills Involving
Relations With Fellow Workers,
Supervisors, and Clients

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	3	0	8	23	4.50
II	0	3	0	2	26	4.65
III	0	1	0	2	28	4.83

Purpose Statement 15 - To Improve the Image of Teachers in the Business Community.

Opinion was very strong against the acceptance of Statement 15 as a purpose of occupational experience for vocational education teachers. Eight of thirty-one participants agreed with the statement in round three. The mean score showed a decided decrease between rounds one and two moving from 3.00 to 2.48. However, a slight increase occurred in the third round as two opinions shifted back to a higher category resulting in a mean of 2.64. Supporting data are shown in Table 16.

Table 16

Summary of Responses to Purpose Statement 15:
To Improve the Image of Teachers in the
Business Community

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	2	13	8	5	6	3.00
II	2	22	0	4	3	2.48
III	0	22	1	5	3	2.64

Purpose Statement 16 - To Develop the Ability to Adjust to New Surroundings, New Personalities, New Routines, and New Standards.

The opinions of participants varied a great deal on Statement 16 during the three rounds of the Delphi procedure. The mean score moved toward the Disagree categories and then back toward the Agree categories indicating a great deal of uncertainty in responses. No clear pattern emerged and consensus was not attained. Two comments indicate the degree of difference expressed by respondents. In one instance the respondent said, "The ability of an individual to adjust to new situations is 80 percent of the success to be achieved." Another participant commented, "This has no real impact upon success as a vocational teacher." The data are shown in Table 17.

Table 17

Summary of Responses to Purpose Statement 16: To Develop the Ability to Adjust to New Surroundings, New Personalities, New Routines, and New Standards

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	1	8	6	11	8	3.50
II	1	10	4	11	5	3.29
III	1	4	4	19	3	3.61

Purpose Statement 17 - To Formulate Realistic Concepts of Career Opportunities.

Participants agreed that a purpose of occupational experience is to help formulate realistic concepts of career opportunities. However, more participants responded in the Agree category than in the Strongly

Agree category resulting in a mean score of 4.32 in the second Delphi round. Consensus was achieved in round two, but with a relatively low mean score. The data are shown in Table 18.

Table 18

Summary of Responses to Purpose Statement 17:
To Formulate Realistic Concepts
Of Career Opportunities

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	0	1	1	17	14	4.33
II	0	0	1	19	11	4.32
III	a					

[a] A consensus was achieved after round two

Purpose Statement 18 - To Add to the Credibility of the Teacher in the Eyes of the Student.

The opinions of several participants were changed between rounds two and three and consensus was achieved on Statement 18. The statement was not included in the original list of purposes, but was added in the second round after being suggested by two participants. There is similarity between Statement 18 and Statement 15. Participants agreed that occupational experience should add to the credibility of teachers in the eyes of students, but could not agree that it should improve the image of teachers in the business community. The data appear in Table 19.

Table 19

Summary of Responses to Purpose Statement 18:
To Add to The Credibility of the Teacher
in the Eyes of the Student

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	b					
II	0	2	5	11	13	4.06
III	0	0	1	17	13	4.38

[b] Statement added after first round

Purpose Statement 19 - To Develop an Understanding of the Private Economic Responsibilities of the Business Community.

Statement 19 was added to the list of purposes in the second round. The mean score increased from 4.19 in round two to 4.51 in round three and consensus was achieved. However, there was a relatively even division of opinion between the Strongly Agree and Agree categories as shown in Table 20.

Table 20

Summary of Responses to Purpose Statement 19:
To Develop an Understanding of the Private
Enterprise System and the Social and
Economic Responsibilities of the
Business Community

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	b					
II	1	0	5	11	14	4.19
III	0	0	1	13	17	4.51

[b] Statement added after first round

Purpose Statement 20 - To Develop an Empathy with Students in Their Role as Beginning Employees.

This statement was added in the second round and immediately accepted by participants as a purpose of occupational experience. However, responses were divided between the Agree and Strongly Agree categories resulting in a mean score of 4.45. The data are shown in Table 21.

Table 21

Summary of Responses to Purpose Statement 20:
To Develop an Empathy with Students in
Their Role as Beginning Employees

	Frequency					
Questionnaire No.	SD	D	U	A	SA	Mean
I	b					
II	0	0	1	15	15	4.45
III	a					

[a] Consensus was achieved after round two
[b] Statement was added after first questionnaire

Comments.

The standard for acceptance of purpose statements was established by the researchers prior to initiating the Delphi procedure. The standard of consensus allowed one participant to be undecided or disagree with the majority opinion. All other participants were to be in total agreement on the purpose in order for consensus to be achieved.

Using the established standard of consensus, thirteen of the original seventeen purpose statements were accepted by the distributive education Delphi panel members as purposes of occupational experience for vocational education teachers. All three of the purpose statements suggested by participants and added in the first round received consensus from the panel members. Of the sixteen purpose statements accepted by the Delphi panel, nine received consensus in round two of the Delphi procedure and seven were agreed upon in round three.

The agreed-upon purposes were ranked using the mean score of participants' responses. The rankings and mean scores are shown in Table 22.

Four purpose statements had a mean score above 4.90 in the final ranking, indicating almost total agreement among participants. The highest ranked purpose reveals the importance of technical competencies for vocational education teachers. The next three statements also emphasized technical knowledges and skills needed by vocational teachers. Panel members agreed that occupational experience should help teachers understand occupational requirements and the language of business. In addition, occupational experience should provide effective experiences for teachers in the work environment.

Table 22

The Purposes of Occupational Experience
for Vocational Education Teachers as Identified
By Distributive Education Personnel

Rank	Mean Score	Statement Number	Purpose Statement
1	4.96	4	To develop, improve, apply and/or integrate technical competencies of an occupation.
2	4.93	2	To provide a general knowledge and understanding of the nature and requirements of specific occupations.
2	4.93	8	To experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

Table 22 (continued)

Rank	Mean Score	Statement Number	Purpose Statement
2	4.93	9	To understand and use the language of the business world.
5	4.83	14	To develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
6	4.61	6	To learn about new technologies in business and industry.
7	4.51	19	To develop an understanding of the private enterprise system and the social and economic responsibilities of the business community.
8	4.45	20	To develop an empathy with students in their role as beginning employees.
9	4.41	1	To develop confidence in one's abilities and skills.
9	4.41	5	To obtain an overall picture of the organization of a business.
11	4.38	10	To obtain information about current business standards.
11	4.38	18	To add to the credibility of the teacher in the eyes of the student.
13	4.32	17	To formulate realistic concepts of career opportunities.
14	4.29	7	To develop a philosophy of work.
15	4.09	12	To become acquainted with resource materials and people in business that can be utilized in the classroom.
16	4.00	11	To understand the relationships that occur among businesses.

The fifth-ranked purpose received a mean score of 4.83. The high ranking indicates that occupational experience should be used to develop human relations skills of vocational teachers. The nature of those human relations skills should be broad encompassing peers, supervisors, and clients of the business.

The mean scores decreased markedly between the fifth and sixth-ranked purposes indicating a growing uncertainty among Delphi panel members on the purposes of occupational experience. Purpose Statement 6, which was ranked sixth, is similar to those ranked higher in its emphasis on technical knowledge for vocational teachers. However, it is much more specific with an emphasis on new technologies in business and industry. Concern was expressed by some participants that occupational experience must be recent for such a purpose to be valid. Other participants assigned a high value to the purpose because of their belief that courses at the collegiate level often did not provide current technical information.

Purpose Statement 19 was ranked seventh with a mean score of 4.51. The mean score shows an almost even division of opinion between the Strongly Agree and Agree categories. Occupational experience should provide vocational teachers with a general understanding of business responsibilities within the economic system.

The eighth-ranked purpose was added in the first round by participants. The purpose is conceptually unique from the other purposes. Participants agreed that occupational experience should help teachers understand the employment situations of students. The affective nature of the purpose is similar to Purpose Statement 8, but it is specifically oriented to the employment role of students.

Purposes 1 and 18 received mean scores of 4.41 and 4.38 respectively and were ranked ninth and eleventh. The opportunity to develop and apply technical skills in an employment situation will improve the teacher's confidence as well as the students' confidence in the teacher's abilities according to Delphi panel members. While some uncertainty was expressed by a number of participants regarding the value of the two purposes, both were accepted as purposes of occupational experience.

The development of technical knowledge is an important element of occupational experience, and Purpose Statements 5 and 10 refer to specific technical knowledge that is needed by vocational teachers. Statement 5, ranked ninth with a mean of 4.41, recognized the value of understanding business organization. Statement 10, ranked eleventh with a mean of 4.38, suggests that vocational teachers can obtain knowledge of current business standards through occupational experience. Once again the concept of current information was emphasized by several panel members. The opinion was expressed that occupational experience must be recent to be of most value to the teacher.

The guidance role of vocational teachers was emphasized in the thirteenth-ranked purpose statement. Participants agreed that occupational experience should help teachers to better understand career opportunities in the occupational area. The mean score for the purpose was 4.32, indicating that a majority of the panel members had some reservation about the value of the purpose.

A very general purpose was accepted by participants with a mean of 4.29. A value of occupational experience is to help teachers develop a philosophy of work. Some panel members believed that such a philosophy should be developed before the time that occupational experience is gained, but the panelists did agree at the completion of the Delphi procedure that occupational experience can contribute to the development of a philosophy of work.

Occupational experience should help vocational teachers develop resources to be utilized in the classroom according to the purpose statement ranked fifteenth. The purpose was next to the last of those accepted by the Delphi panel, and concern was expressed that occupational experiences are usually to limited to be very effective in identifying resources for classroom use. However, other participants felt the experience could be transferable and useful to teachers in other situations.

The final purpose to be accepted by the distributive education Delphi panel achieved a mean score of 4.00. An understanding of business relationships is emphasized in the purpose. There was some question of the meaning of the purpose by participants, and there was a lack of strong support as shown by the low mean score. The purpose is closely related to Statements 19 and 5 indicating that vocational teachers should develop an understanding of the business environment as well as technical skills during their occupational experiences.

Business and Office Education Delphi Panel

Purpose Statement 1 - To Develop Confidence In One's Abilities and Skills

The Delphi panel's general agreement with this statement, as shown by the data in Table 23, is indicated by a mean score of 4.07 on Questionnaire I and a mean score of 4.20 on Questionnaire II. Since Delphi panel members were not asked to justify in writing their responses to the first questionnaire, the only feedback received by them was the frequency of responses and mean score. The movement of responses to the agree category on the second questionnaire may have been based solely on feedback of the results from the previous round.

Table 23

Summary of Responses to Purpose Statement 1:
To Develop Confidence in One's Abilities
and Skills

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		3	2	14	10	4.07
II			1	22	7	4.20
III	a					

[a] A concensus was achieved after Round II.

Purpose Statement 2 - To Provide a General Knowledge and Understanding of the Nature and Requirements of Specific Occupations.

As all responses were in the agree or strongly agree categories on both the first and second questionnaires, the high degree of acceptance of this purpose is apparent. As shown in Table 24, acceptance was even greater on the second round, when all but one person strongly agreed with this statement. This statement was accepted as a purpose after the second round results were analyzed.

The strong agreement on the second questionnaire may be attributed to the change in wording on the second questionnaire. The original statement read: "to secure specific knowledge and understanding of the nature and requirements of specific occupations.

The original wording was changed based on the following recommendations:

1. "To provide more than a general knowledge and understanding of the nature and requirements of specific occupations."
2. "To secure a general knowledge and understanding of the nature and requirements of specific occupations."
3. "To provide a specific knowledge and understanding of the nature and requirements of specific occupations."
4. "To provide additional knowledge and a deeper understanding of the nature and requirements of specific occupations."

Table 24

Summary of Responses to Purpose Statement 2: To Provide a General Knowledge and Understanding of the Nature and Requirements of Specific Occupations

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I				7	22	4.76
II				1	29	4.97
III	a					

[a] A concensus was achieved after Round II

Purpose Statement 3 - To Integrate Theory Learned in School with Actual Practice on a Job.

Based on the opinions of the Delphi panel, this particular purpose is very important. The difference in mean score between the first and second questionnaire was very small changing from 4.83 on the first questionnaire to 4.77 on the second questionnaire. The panel was not asked to respond to this statement on the third questionnaire because all respondents indicated they agreed or strongly agreed with it. Statement 3 data appear in Table 25.

Table 25

Summary of Responses to Purpose Statement 3:
To Integrate Theory Learned in School With
Actual Practice on a Job

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I				5	24	4.83
II				7	23	4.77
III	a					

[a] A concensus was achieved after Round II

Purpose Statement 4 - To Develop, Improve, Apply, and/or Integrate Technical Competencies of an Occupation.

The general acceptance of this statement as a purpose of occupational experience is apparent from the frequency of responses; all responses were in the agree or strongly agree categories on both the first and second questionnaire. There was a minute change in mean score from the first to the second questionnaire as shown in Table 26.

Table 26

Summary of Responses to Purpose Statement 4:
To Develop, Improve, Apply, and/or
Integrate Technical Competencies
of an Occupation

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I				14	15	4.52
II				14	16	4.53
III		a				

[a] A concensus was achieved after Round II.

Purpose Statement 5 - To Obtain an Overall Picture of the Organization of a Business.

The frequency of responses to Statement 5 indicated a lack of total agreement on the first round but a movement toward agreement on the second round, with 15 people agreeing and 15 people strongly agreeing that it is a purpose of occupational experience.

The increase in mean score from 4.34 on the first questionnaire to 4.50 on the second questionnaire was not as significant as the opinion change made by one person who strongly disagreed and three people who were undecided on the first questionnaire. These data appear in Table 27.

This statement was accepted after the second round; therefore, it did not appear on the third questionnaire.

Table 27

Summary of Responses to Purpose Statement 5:
To Obtain an Overall Picture of the
Organization of a Business

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	1		3	9	16	4.34
II				15	15	4.50
III	a					

[a] A concensus was achieved after round II.

Purpose Statement 6 - To Learn About New Technologies in Business and Industry.

The mean rose from 4.34 on the first questionnaire to 4.60 on the second questionnaire. The mean was quite high on both rounds indicating the respondents' high agreement with this statement. As shown in Table 28, the person who disagreed on the first questionnaire apparently did not change his/her opinion on the second questionnaire.

This statement was accepted as a purpose of occupational experience for vocational teachers after the second round.

One of the 29 first round returns did not have a response indicated for this particular statement.

Table 28

Summary of Responses to Purpose Statement 6:
To Learn About New Technologies in
Business and Industry

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		1		11	16	4.34
II		1		9	20	4.60
III	[a]					

[a] A consensus was achieved after round II.

Purpose Statement 7 - To Develop a Philosophy of Work.

The mean score raised slightly from 3.90 on the first round to 4.03 on the second, but dropped to 3.87 on the third. As can be seen in Table 29, the number of responses in the strongly agree category increased the second round, but lowered the third round. The downward shift in responses on the third round may have been because the respondents were sent, along with the third questionnaire, the written justifications given by respondents for disagreeing with the majority opinion.

Because of the divergence of opinion on this statement, it was not accepted as a purpose of occupational experience.

The following two suggestions were made for rephrasing Statement 7:

1. "To develop further one's philosophy of work."
2. "To develop a philosophy of work as related to the American system."

Table 29

Summary of Responses to Purpose Statement 7:
To Develop a Philosophy of Work

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		4	2	16	7	3.90
II		4	1	15	10	4.03
III		5	1	17	7	3.87

Purpose Statement 8 - To Experience the Actual Stress, Pressures, Frustrations, and Sense of Achievement That are Part of Every Job.

The lack of total agreement on the first questionnaire is indicated in Table 30 by two responses in the disagree category and two responses in the undecided category. The second questionnaire results showed eight people agreeing and twenty people strongly agreeing with this statement. The mean moved from 4.45 on the first round to 4.73 on the second round. Because there was total agreement on the second questionnaire, this statement was accepted as a purpose and was not listed on the third round questionnaire.

Table 30

Summary of Responses to Purpose Statement 8:
To Experience the Actual Stress,
Pressures, Frustrations, and

Table 30 (continued)

Sense of Achievement That
are Part of Every Job

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		2	2	6	19	4.45
II				8	23	4.73
III	a					

[a] A consensus was achieved after Round II.

Purpose Statement 9 - To Understand and Use the Language of the Business World.

It is interesting to note the convergence of responses to the majority response category, agree, on the second round, but the dispersion of responses on the third round as indicated in Table 31. The reasons given for disagreeing with the majority opinion on the second round were included in the feedback given to the respondents on the third round. This purpose statement was not accepted.

Table 31

Summary of Responses to Purpose Statement 9:
To Understand and Use the Language of the
Business World

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		2	1	16	9	4.00
II		2	0	22	6	4.20
III	1	2	2	15	10	4.03

Purpose Statement 10 - To Obtain Information About Current Business Standards.

As shown in Table 32, three people did not agree with this statement on the first round, but only one person did not agree with it on the second round. Table 32 reveals the mean on the second round, 4.53, was slightly higher than the mean on the first round, 4.38.

Statement 10 was accepted as a purpose of occupational experience, based on the results of the second questionnaire.

Table 32

Summary of Responses to Purpose Statement 10:
To Obtain Information About Current
Business Standards

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		2	1	10	16	4.38
II		1		11	18	4.53
III	a					

[a] A concensus was achieved after Round II.

Purpose Statement 11 - To Understand the Relationships Among Businesses.

As indicated in Table 33, the mean increased from 3.55 on the first round to 4.00 on the second round, but dropped slightly to 3.90 on the third round. Once again, the frequency of responses shows movement toward the majority opinion category on the second round, but movement away from it on the third round.

Statement 11 was not accepted as a purpose of occupational experience.

Table 33

Summary of Responses to Purpose Statement 11:
To Understand the Relationships That
Occur Among Businesses

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		4	7	16	2	3.55
II		1	1	25	3	4.00
III		4	3	15	8	3.90

Purpose Statement 12 - To Become Acquainted With Resource Materials and People in Business.

The number of respondents agreeing with this statement was high on all three rounds, but two respondents continued to disagree even though the majority of respondents agreed with it. The final mean score, 4.23, fell within the agree category as shown in table 34.

Statement 12 was not accepted as a purpose because of the two responses in the disagree category.

Table 34

Summary of Responses to Purpose Statement 12:
To Become Acquainted With Resource
Materials and People in Business
That Can Be Utilized in the
Classroom

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		3	1	19	6	3.97
II		1	1	23	5	4.07
III		2		17	11	4.23

Purpose Statement 13 - To Develop Work Habits That Have Broad Application to the Jobs They Will Hold During Their Lifetime.

The original wording of this statement on Questionnaire I did not include the words "as teachers."

This statement was revised on Questionnaires II and III because of the following rephrasing suggestions:

1. "To develop work habits that have broad applications to the jobs they, as teachers will hold during their lifetime."
2. "To develop a further understanding of work habits that have broad application to the jobs their students will hold during their lifetime."

The divergence of opinion on this statement is especially apparent by the frequency of responses in each of the five categories, as indicated in Table 35. From the first round to the third round, there was only a slight change of opinion by the respondents to this statement. The mean increased from 3.17 on the first questionnaire to 3.50 on the third questionnaire.

Table 35

Summary of Responses to Purpose Statement 13:
To Develop Work Habits That Have Broad
Application to the Jobs the Teacher
Will Hold

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	2	10	3	9	5	3.17
II	1	9	5	13	2	3.20
III	1	9	1	12	7	3.50

This statement was not accepted as a purpose because of the divergence of opinion.

Purpose Statement 14 - To Develop Interpersonal Skills Involving Relations With Fellow Workers, Supervisors, and Clients.

The influence of the majority opinion is apparent from the shift in responses on the second round, as shown in Table 36. Five respondents who disagreed or who were undecided on the first round moved to one of the agree categories on the second round. After the second questionnaire results were tabulated, this statement was accepted as a purpose.

Table 36

Summary of Responses to Purpose Statement 14: To Develop Interpersonal Skills Involving Relations With Fellow Workers, Supervisors, and Clients

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	1	3	1	12	12	4.07
II				19	11	4.37
III	a					

[a] A concensus was achieved after Round II.

Purpose Statement 15 - To Improve the Image of Teachers in the Business Community.

The greatest number of responses on the first round, 13, was in the disagree category as can be seen in Table 37. Although the number in the disagree category stayed the same on the second and third rounds, the number in the strongly disagree category increased. The lack of consensus continued for all three rounds.

The mean was highest on the first questionnaire. It dropped to 2.80 on the second round, but it increased slightly to 3.07 on the third round. All of the mean scores fell in the undecided category.

Statement 15 was not accepted as a purpose of occupational experience for vocational teachers.

It was suggested that Statement 15 be altered as follows: "to strengthen the image of teachers in the business community."

Table 37

Summary of Responses to Purpose Statement 15:
To Improve the Image of Teachers in the
Business Community

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I		13	4	7	5	3.14
II	3	13	4	7	3	2.80
III	1	13	3	9	4	3.07

Purpose Statement 16 - To Develop the Ability to Adjust to New Surroundings, New Personalities, New Routines, and New Standards.

As shown in Table 38, the Delphi panel's responses varied on the first questionnaire from strongly disagree to strongly agree. The number of respondents who marked agree or strongly agree for this statement increased slightly on the second round but decreased on the third round. It is interesting that eight respondents disagreed or strongly disagreed on the first round, and the eight respondents still disagreed on the third round. As is true of most of the statements listed in Questionnaire III, the mean increased slightly on Questionnaire II, but decreased on Questionnaire III. Statement 16 was not accepted as a purpose.

Table 38

Summary of Responses to Purpose Statement 16: To Develop the Ability to Adjust to New Surroundings, New Personalities, New Routines, and New Standards

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I	1	7	3	14	4	3.45
II		4	2	20	4	3.80
III		8	1	12	9	3.73

Purpose Statement 17 - To Formulate Realistic Concepts of Career Opportunities.

The Mean was 4.48 on Questionnaire I and 4.43 on Questionnaire II, as shown in Table 39. The frequency of responses on Questionnaire I shows one respondent undecided, 13 respondents agreeing, and 15 respondents strongly agreeing with Statement 17. The movement on Questionnaire II is toward the agree category with 17 respondents agreeing and 13 respondents strongly agreeing. This statement was accepted as a purpose after the second round.

Table 39

Summary of Responses to Purpose Statement 17: To Formulate Realistic Concepts Of Career Opportunities

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
I			1	13	15	4.48
II				17	13	4.43
III	a					

[a] A concensus was achieved after Round II.

Purpose Statement 18 - To Develop a Further Understanding of Work Habits That Have Broad Application to the Jobs their Students Will Hold During their Lifetimes.

Statement 18 was similar in wording to Statement 13, except that Statement 18 dealt with jobs students would hold rather than jobs teachers would hold. Although more respondents agreed with Statement 18 than with Statement 13, it was still not accepted as a purpose of occupational experience. The data for Statement 18 appear in Table 40.

Table 40

Summary of Responses
To Develop a Further Understanding of Work
Habits that Have Broad Application
to the Jobs Their Students Will
Hold during their Lifetimes[b]

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
III		1	1	16	12	4.30

[b]Statement 18 was added after Round II.

Purpose Statement 19 - To Become Acquainted With Potential Candidates for the Local Advisory Committee.

More respondents disagreed than agreed with this purpose statement. Fifteen respondents disagreed that Statement 19 is a purpose of occupational experience, five were undecided, seven agreed, and three strongly agreed. These data appear in Table 41.

The lack of consensus is indicated not only by the frequency of responses but also by the mean score, 2.93.

Table 41

Summary of Responses to Purpose Statement 19:
To Become Acquainted with Potential Candidated for
The Local Advisory Committee[b]

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
III		15	5	7	3	2.93

[b] Statement 19 was added after Round II.

Purpose Statement 20 - To Provide another source of Income and/or retirement benefits.

As revealed in Table 42, more respondents disagreed with this statement than agreed with it. The number of respondents strongly disagreeing with this purpose was greater than any of the other purposes.

Table 42

Summary of Responses to Purpose Statement 20:
To Provide another Source of Income and/or
Retirement Benefits[b]

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
III	12	9	2	6	1	2.17

[b] Statement 20 was added after Round II.

The mean, 2.17, indicates disagreement. Statement 20 had the lowest mean of any of the purpose statements; consequently, the statement was not accepted.

Purpose Statement 21 - To Provide Another Source of Security for the Teachers via Jobs related to their training.

Statement 21 was not accepted as a purpose of occupational experience. Twenty respondents disagreed or strongly disagreed that this statement is a purpose of occupational experience, five respondents agreed or strongly agreed, and five were undecided. The data for this statement are shown in Table 43.

The mean score, 2.20, fell in the disagree category. From the frequency of responses and the mean as shown in table 43, it is apparent that the respondents did not believe that this was a purpose of occupational experience.

Table 43

Summary of Responses to Purpose Statement 21:
To provide another Source of Security For
The Teachers Via Jobs Related to
Their Training[b]

Questionnaire No.	Frequency					Mean
	SD	D	U	A	SA	
III	10	10	5	4	1	2.20

[b] Statement 21 was added after Round II.

Ten out of twenty-one purposes were accepted by the business and office education Delphi Panel. The ten accepted purposes were ranked according to mean from the most agreed upon to the least agreed upon purpose. The ranking appears in Table 44.

Table 44

The Purposes of Occupational Experience for Vocational Education Teachers as Identified by Business and Office Education Personnel

Rank	Mean Score	Statement Number	Purpose Statement
1	4.97	2	To provide a general knowledge and understanding of the nature and requirements of specific occupations.
2	4.77	3	To integrate theory learned in school with actual practice on a job.
3	4.73	8	To experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.
4	4.60	6	To learn about new technologies in business and industry.
5	4.53	4	To develop, improve, apply and/or integrate technical competencies of an occupation.
5	4.53	10	To obtain information about current business standards.
7	4.50	5	To obtain an overall picture of the organization of a business.
8	4.43	17	To formulate realistic concepts of career opportunities.
9	4.37	14	To develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
10	4.20	1	To develop confidence in one's abilities and skills.

The most important purpose, according to the business and office education panel, is to develop knowledge of specific occupations. The fourth-ranked purpose also dealt with business knowledge, but dealt more specifically with technical advances.

The second-, third-, and fifth-ranked purposes were related to specific benefits of job experience including practical application, attitude development, and technical competence development. Purposes ranked ninth and tenth were closely associated to those concepts. One dealt with the development of interpersonal skills and the other related to confidence in one's skills that could be improved through occupational experience.

The remaining purposes discribed specific business knowledges needed by vocational teachers. They included business standards, business organization and career opportunities.

Nine purposes of occupational experience were commonly agreed upon by both panels. Those purposes are shown in Table 45.

It should be noted that one purpose accepted by the business and office education panel was not accepted by the distributive education panel. Four statements from the original list of seventeen were accepted by the distributive education panel but not by the business and office education panel. In addition three statements not on the original list were suggested and accepted by the distributive education panel. This data would suggest that there are unique interpretations of the role of occupational experience within the disciplines.

Table 45

The Purposes of Occupational Experience for Vocational Education Teachers

Statement Number	Purpose Statement
1	To develop confidence in one's abilities and skills.

Table 45 (continued)

Statement Number	Purpose Statement
2	To provide a general knowledge and understanding of the nature and requirements of specific occupations.
4	To develop, improve, apply and/or integrate technical competencies of an occupation.
5	To obtain an overall picture of the organization of a business.
6	To learn about new technologies in business and industry.
8	To experience the actual stress, pressures, frustrations, and sense of achievement that are a part of every job.
10	To obtain information about current business standards.
14	To develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
17	To formulate realistic concepts of career opportunities.

In an analysis of the purposes accepted by the Delphi panels, some common elements emerge. Five of the nine purposes deal with knowledges of the business environment. The knowledge that should be developed ranges from a very general understanding of the occupations as shown in Statement 2 to specific knowledge of business standards as described in Statement 17. The purposes related to a knowledge of the business environment are shown in Table 46.

Table 46

The Purposes of Occupational Experience that Refer to Knowledges of the Business Environment Needed by Vocational Teachers

Statement Number	Rank	Mean Score	Purpose Statement
2	2	4.93	To provide a general knowledge and understanding of the nature and requirements of specific occupations.
5	9	4.41	To obtain an overall picture of the organization of a business.
6	6	4.61	To learn about new technologies in business and industry.
10	11	4.38	To obtain information about current business standards.
17	13	4.32	To formulate realistic concepts of career opportunities.

Two purposes refer to specific skill development for vocational teachers. Those skills include the development of technical competencies of an occupation, interpersonal skills. The purposes that refer to skill development are listed in Table 47.

Table 47

The Purposes of Occupational Experience that Refer to Skills Needed by Vocational Teachers

Statement Number	Rank	Mean Score	Purpose Statement
4	1	4.96	To develop, improve, apply and/or integrate technical competencies of an occupation.
14	5	4.83	To develop interpersonal skills involving relations with fellow workers, supervisors, and clients.

A range of attitudes and values should be examined through a teacher's occupational experiences. Two purposes statements refer to those values and attitudes as shown in Table 48.

Table 48

The Purposes of Occupational Experience that Refer to Attitudes and Values Needed by Vocational Teachers

Statement Number	Rank	Mean Score	Purpose Statement
1	9	4.41	To develop confidence in one's abilities and skills.
8	2	4.93	To experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

VALIDATION OF TEACHING COMPETENCIES

The second phase of the study was designed to validate competencies that can be developed through occupational experiences. Participants were asked to respond to a list of 95 competencies using a seven-point scale. The seven points of the scale were: Strongly Disagree, Disagree, Partially Disagree, Undecided, Partially Agree, Agree, and Strongly Agree. To compute mean scores for the competency statements, numerical values were assigned to the seven points of the scale as shown in Table 49.

Table 49

Numerical Values Assigned to the Seven-Point Scale on Competency Validation Questionnaires

Original Scale	SD	D	PD	U	PA	A	SA
Numerical Values	1	2	3	4	5	6	7

Participant Characteristics

Distributive education and business and office education teachers, teacher educators, and state supervisors were the populations utilized in competency validation. Teacher educators and state supervisors were selected from their respective national populations. The populations of the states of Colorado, Iowa, Kansas, Minnesota, and Missouri were utilized for the random selection of teachers. Both secondary and post-secondary distributive education and business and office education teachers were selected from each state to proportionately represent the composition of each state's respective teacher populations. The numbers of participants in each of the four major categories are shown in Tables 50 and 51.

Table 50

Summary of Occupations of Participants in Competency Validation - Distributive Education

Occupation	Number	Percent
Secondary Teacher	64	39.7
Post Secondary Teacher	33	20.5
Teacher Educator	32	19.9
State Supervisor	32	19.9

Table 51

Summary of Occupations of Participants in Competency Validation - Business and Office Education

Occupation	Number	Percent
Secondary Teacher	129	48.0
Post Secondary Teacher	62	23.0
Teacher Educator	38	14.1
State Supervisor	40	14.9

The numbers of teachers from each of the five states are shown in Tables 52 and 53.

Table 52

Summary of Distributive Education Teachers from Each State Participating in Competency Validation

State	Number	Percent
Colorado	12	12.4
Iowa	12	13.4
Kansas	8	8.2
Minnesota	36	37.1
Missouri	28	28.9

Table 53

Summary of Business and Office Education Teachers from Each State Participating in Competency Validation

State	Number	Percent
Colorado	63	32.8
Iowa	16	8.3
Kansas	12	6.2
Minnesota	35	18.2
Missouri	66	34.5

Demographic data were collected on each of the participants. The data were categorized for analysis of responses. Tables 54 and 55 present a summary of the data. Frequency counts and percentages are presented for each of the variables. The range on each of the variables was wide with frequencies generally evenly spread among categories. Data was collected and analyzed separately for distributive education personnel and business and office education personnel.

Table 54

Summary of Demographic Data Obtained from Distributive Education Participants Responding to Competency Validation Questionnaires[a]

Variable	Categories	Number	Percent
Years of Occupational Experience	1- 2 years	7	4.3
	3- 4	34	21.1
	5- 6	39	24.2
	7- 8	26	16.1
	9-10	19	11.8
	Over 10	36	22.4
Years of Distributive Occupational Experience	1- 2 years	19	11.8
	3- 4	48	29.8
	5- 6	42	26.1
	7- 8	8	5.0
	9-10	18	11.2
	Over 10	26	16.1
Year of Most Recent Occupational Experience	Within Past Year	30	18.6
	1- 5 years	65	40.4
	6-10 years	39	24.2
	Over 10	27	16.8
Years of Teaching Experience	1- 3 years	29	18.0
	4- 6	48	29.8
	7- 9	22	13.7
	10-12	12	7.5
	13-15	12	7.5
	Over 15	38	23.6
Years of Distributive Education Teaching Experience	1- 3 years	45	28.0
	4- 6	48	29.8
	7- 9	27	16.8
	10-12	13	8.1
	13-15	11	6.8
	Over 15	17	10.6
College Degree Completed	Bachelors	49	30.4
	Masters	71	44.1
	Doctorate	32	19.9
	Other	9	5.6

[a] N=161

Table 55

Summary of Demographic Data Obtained from Business and Office Education Participants Responding to Competency Validation Questionnaires[a]

Variable	Categories	Number	Percent
Years of Occupational Experience	Less than 1 year	3	01
	1- 2 years	43	16
	3- 4	72	27
	5- 6	62	23
	7- 8	24	09
	9-10	29	11
	Over 10	37	14
Years of Business and Office Occupational Experience	Less than 1 year	3	01
	1- 2 years	60	22
	3- 4	84	31
	5- 6	57	21
	7- 8	22	08
	9-10	20	07
	Over 10	24	09
Year of Most Recent Occupational Experience	Within Past Year	47	17
	1- 5 Years	84	31
	6-10	64	24
	Over 10	75	28
Years of Teaching Experience	1- 3 years	27	10
	4- 6	53	20
	7- 9	35	13
	10-12	30	11
	13-15	28	10
	Over 15	97	36
Years of Business and Office Education Teaching Experience	1- 3 years	34	13
	4- 6	54	20
	7- 9	43	16
	10-12	39	14
	13-15	24	09
	Over 15	76	28
College Degree Completed	Bachelors	76	28
	Masters	151	56
	Doctorate	38	14
	Other	5	02

[a] N=270

Ranking of Competencies

Participants were asked to indicate the value of occupational experience in developing each of 95 teaching competencies using a seven-point Likert scale. The values assigned by participants were averaged to obtain mean scores for each competency statement. Participants were identified within the three occupational categories of teachers, teacher educators, and state supervisors.

A composite ranking of competencies was developed by combining the rankings of the three occupational groups. Each of the three groups' rankings were assigned equal value in developing the final ranking even though the number of participants in each category was unequal. Final rankings of competencies for distributive education and for business and office education are shown in Appendix F.

A mean score of 1.00 would correspond to the Strongly Disagree category on the seven-point Likert scale used to determine respondents' opinions of the value of occupational experience in developing teaching competencies. A mean score of 7.00 would correspond to a ranking of Strongly Agree. A mean score of 5.00 would correspond to the Partially Agree category. (See Chapter 3 for a definition of each of the seven points on the Likert scale.) Since Partially Agree is the lowest category for agreement, it was determined by the researcher that all competencies receiving a mean score below 5.00 would not be accepted as competencies that can be developed through occupational experience.

Using the standard of 5.00 for the acceptance of competencies, the group of distributive education personnel accepted 39 of the 95 competencies, and business and office education personnel accepted 32 of the

95 competencies. The final rankings of the accepted competencies and their mean scores are shown in Tables 56 and 57.

Table 56

Teaching Competencies That Can be Developed Through Occupational Experience as Identified By Distributive Education Personnel

Rank	Mean Score	Competency
1	6.22	Keep up-to-date in your occupational specialty.
2	6.22	Evaluate students on the job.
3	6.16	Coordinate and supervise on-the-job instruction.
4	6.13	Identify and secure perspective training stations.
5	5.93	Develop training agreements and training plans for placing students on the job.
6	5.91	Assist students in applying for employment or further education.
7	5.73	Keep up-to-date in your profession.
8	5.72	Plan and conduct related instruction.
9	5.70	Develop the training ability of on-the-job instructors.
10	5.67	Establish criteria for student performance in a vocational education program.
10	5.67	Conduct an occupational analysis.
12	5.66	Develop a course of study.
13	5.64	Develop vocational education program goals and objectives.
14	5.58	Direct student laboratory experiences.
15	5.56	Demonstrate a manipulative skill.
16	5.54	Select and obtain a job in keeping with your professional qualifications.
16	5.54	Provide service to and maintain liaison with members of the community.

Table 56 (continued)

Rank	Mean Score	Competency
18	5.44	Provide for the safety need of vocational students.
18	5.44	Conduct individual and group field trips.
20	5.43	Plan and conduct classroom and related activities on educational and career opportunities.
21	5.40	Develop a plan for school-community relations.
22	5.39	Give presentations to school and community groups to promote a vocational education program.
23	5.37	Evaluate your vocational program.
24	5.32	Establish and maintain a personal professional philosophy and ethical standards.
25	5.30	Select and obtain instructional materials.
26	5.29	Develop long range plans for a vocational program.
27	5.28	Establish criteria and guidelines for initiating a cooperative vocational educational program.
28	5.27	Organize and maintain the vocational laboratory.
29	5.21	Plan a unit of instruction.
30	5.19	Organize or reorganize an occupational advisory committee.
31	5.11	Direct students in applying problem-solving techniques.
32	5.07	Maintain an occupational advisory committee.
32	5.07	Write student performance objectives.
34	5.06	Participate in professional activities.
34	5.06	Demonstrate a concept or principle.
36	5.05	Plan and provide laboratory experiences for prospective teachers.
36	5.05	Project instructional resource needs.
38	5.01	Present information using a subject matter expert.
39	5.00	Direct the project method.

Table 57

Teaching Competencies That Can be Developed Through Occupational Experience as Identified By Business and Office Education Personnel

Rank	Mean Score	Competency
1	6.06	Keep up to date in your occupational specialty
2	5.96	Establish criteria for student performance in a vocational education program
3	5.92	Coordinate and supervise on-the-job instruction
3	5.92	Assist students in applying for employment or further education
5	5.88	Evaluate students on the job
6	5.87	Identify and secure prospective training stations
7	5.80	Develop vocational education program goals and objectives
8	5.74	Conduct an occupational analysis
9	5.73	Develop the training ability of on-the-job instructors
10	5.71	Develop a course of study
11	5.70	Evaluate your vocational program
12	5.69	Establish criteria and guidelines for initiating cooperative vocational education program
13	5.68	Plan and conduct related instruction
14	5.67	Keep up to date in your profession
15	5.65	Develop training agreements and training plans for placing students on the job
16	5.61	Plan and conduct classroom and related activities on educational and career opportunities
17	5.53	Develop long-range plans for a vocational program
18	5.36	Select and obtain a job in keeping with your professional qualification

Table 57 (continued)

Rank	Mean Score	Competency
19	5.29	Organize or reorganize an occupational advisory committee
20	5.28	Organize and maintain the vocational laboratory
21	5.26	Direct study laboratory experiences
22	5.25	Give presentations to school and community groups to promote a vocational education program
23	5.24	Write student performance objectives
24	5.23	Plan a unit of instruction
24	5.23	Maintain an occupational advisory committee
26	5.14	Direct the project method
27	5.13	Develop a plan for school-community relations
28	5.12	Conduct individual and group field trips
29	5.11	Prepare teacher-made instructional materials
30	5.07	Plan and provide laboratory experiences for prospective teachers
31	5.01	Arrange for expanding facilities and for purchasing supplies for the vocational program
32	5.00	Provide service to and maintain liaison with members of the community

Components of Teacher Performance

The 95 competencies were categorized within ten major components of vocational teacher performance. (See Appendix G) The values assigned to the competencies within each of the components were averaged to obtain a mean score value for each of the ten components. The components were ranked in order of importance using the computed mean scores. Rankings were determined for each of the occupational groups of teachers, teacher educators, and state supervisors. The orders of importance assigned to the ten components of vocational teacher performance by each of the occupational groups are shown in Appendix H. A high mean score indicates that occupational experience has a greater effect on that component than on a component that received a lower mean score.

A composite ranking of components was computed by combining the respective rankings of the three occupational groups within distributive education and business and office education. The combined ranking of components is shown in Tables 58 and 59.

Table 58

The Effect of Occupational Experience on Ten Components of Vocational Teacher Performance as Determined by the Combined Rankings of Distributive Education Teachers, Teacher Educators, and State Supervisors

Rank	Mean Score	Component
1	5.41	Coordination
2	5.29	Professional Role and Development
3	4.98	Program Planning Development and Evaluation
4	4.96	Guidance
5	4.94	Planning of Instruction
6	4.93	Evaluation of Instruction
7	4.86	School-Community Relations
8	4.75	Management of Instruction
9	4.55	Execution of Instruction
10	4.42	Student Vocational Organization

Table 59

The Effect of Occupational Experience on Ten Components of Vocational Teacher Performance as Determined by the Combined Rankings of Business and Office Education Teachers, Teacher Educators, and State Supervisors

Rank	Mean Score	Component
1	5.34	Coordination
2	5.12	Program Planning, Development and Evaluation
3	5.05	Evaluation of Instruction
4	5.03	Guidance
5	5.03	Professional Role and Development
6	4.93	Planning of Instruction
7	4.84	School-Community Relations
8	4.69	Management of Instruction
9	4.40	Execution of Instruction
10	4.39	Student Vocational Organization

Spearman's Rho rank-order correlation coefficient was computed to determine the degree of association between the rankings of components by the occupational groups. Within Distributive education there was a significant level of association shown in each of the three comparisons. The observed r between teachers and teacher educators was .67 and between teacher educators and state supervisors was .70. Both are significant at the .05 level. The observed r between teachers and state supervisors was .94, which is significant at the .01 level.

Within business education the rankings of all three groups were also significantly correlated. The rho coefficient representing the relationship between teachers' and teacher educators' ranking was .78 which was significant at the .05 level. The r between the rankings of teachers and state supervisors was .81, and between teacher educators and state supervisors was .95. Both correlations were significant at the .01 level.

When final rankings of distributive education personnel were compared with those of business and office education personnel using the Spearman's Rho statistic a significant relationship was also found. The two rankings were correlated at the .01 level with a coefficient of .88. Significant, positive, and dependable relationships existed between the rankings of all groups based on their responses to the related competency statements.

Each of the occupational groups ranked coordination as the component of vocational teacher education on which occupational experience has the greatest effect, while rankings varied after the first component, there was a very close association and several components received the same ranking from many or all of the occupational groups.

Association of Participant Responses and Demographic Characteristics

In order to determine the effect of certain demographic characteristics on the responses of participants, the Pearson r statistic was computed. The correlation coefficient was used to determine if relationships existed between participants' responses on each of the ten components of a vocational teacher's role and (1) total years of occupational experience, (2) total years of specific occupational experience, (distributive education or business and office education) (3) recency of work experience, (4) total years of teaching experience, and (5) total years of specific teaching experience, (distributive education or business and office education). The computed coefficients are shown in Tables 60 and 61.

No significant associations exist between the ten components of a vocational teacher's role and the five demographic characteristics examined for either distributive education or business and office education. This would appear to indicate that the effect of occupational experience on the competencies needed by vocational education teachers is thought to be the same regardless of the length, recency or specific nature of one's occupational or teaching experience.

Multivariate Analysis of Variance

To determine if significant differences existed between various classifications of participants, a multivariate analysis of variance test was used. The analysis of variance will show if differences in responses between groups of participants is a result of unique compositions of the groups, or if it can be attributed to sampling. Hotelling-Lawley's Trace was selected as the multivariate analysis of variance test statistic. The statistic compares the variability of responses among groups with the variability of responses within groups. If differences of group response are small enough to be attributed to sampling, the Hotelling-Lawley's Trace will yield an F score that approaches 1.00. Comparisons were made using the mean scores of the ten components of a vocational teacher's role. The multivariate analyses of variance are illustrated in Table 62.

The F score for each of the tests comparing distributive education personnel is very close to 1.00 indicating little variation

Table 60

The Association Between the Ten Components of a Vocational Teacher's Role and Five Demographic Characteristics Using the Pearson r Statistic (Distributive Education Personnel)

Factors	Years of Occupational Experience	Years of Distributive Experience	Recency of Occupational Experience	Years of Teaching Experience	Years of Distributive Teaching Experience
Program Planning Development and Evaluation	.1523[a]	.1030	.0071	.0632	-.0040
Planning of Instruction	.1367	.1232	-.1432	.0321	-.0733
Execution of Instruction	.2016	.1419	-.2015	.0132	-.0870
Evaluation of Instruction	.1219	.0815	-.0504	-.0761	-.1852
Management	.2009	.1610	-.1215	-.0608	-.1100
Guidance	.2302	.2086	-.0828	-.0212	-.0766
School-Community Relations	.1323	.1306	-.0912	.0355	-.0333
Student Vocational Organization	.0965	.0705	-.1401	-.0702	-.1400
Professional Role and Development	.1065	.0921	-.1514	-.0968	-.0715
Coordination	.1573	.1246	.0235	.0533	.0095

[a] Pearson r correlation coefficient

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Table 61

The Association Between the Ten Components of a Vocational Teacher's Role and Five Demographic Characteristics Using the Pearson r Statistic (Business and Office)

Factors	Years of Occupational Experience	Years of Business & Office Experience	Recency of Occupational Experience	Years of Teaching Experience	Years of Business & Office Teaching Experience
Program Planning	0.1535[a]	0.1500	0.0387	-0.0464	-0.0840
Instructional Planning	0.0999	0.1075	0.0158	-0.0446	-0.0886
Instructional Execution	0.1412	0.1634	-0.0129	-0.1623	-0.1672
Instructional Evaluation	0.1697	0.1523	0.0242	-0.0521	-0.0974
Instructional Management	0.0703	0.0929	0.0544	-0.1452	-0.1337
Guidance	0.0398	0.0396	0.0442	-0.0958	-0.0748
School-Community Relations	0.1521	0.1960	0.0731	-0.0104	0.0050
Student Organizations	0.1353	0.1336	0.0466	-0.0712	-0.0999
Professional Development	0.1397	0.1670	-0.0503	-0.1337	-0.1050
Coordination	0.118	0.1356	0.0726	-0.0421	-0.0516

[a] Pearson r correlation coefficient

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between groups. None of the differences were significant at the .05 level. Therefore, it can be concluded that any differences in participants' responses are a result of sampling.

Table 62

Multivariate Analysis of Variance for Selected Characteristics of Distributive Education and Business and Office Education Personnel

Groups	F Ratio Distributive Education	 Business and Office Education
Teachers, Teacher Educators, and State Supervisors	1.41	1.58*
Secondary and Postsecondary Teachers	0.67	1.80
Colorado, Iowa, Kansas Minnesota, and Missouri Teachers	1.04	1.23
Bachelors, Masters, and Doctorate Degree	1.26	1.07

*Significant at the .05 level

In the analysis of the responses of business and office education personnel, all differences but one were found to be non-significant. The comparison of responsis between teachers, teacher educators, and state supervisors resulted in an F ratio of 1.58, with 20 and 514 degrees of freedom. This F was significant at the .05 level, which indicated that the magnitude of the scatter was great enough to believe that it was caused by something other than sampling distribution.

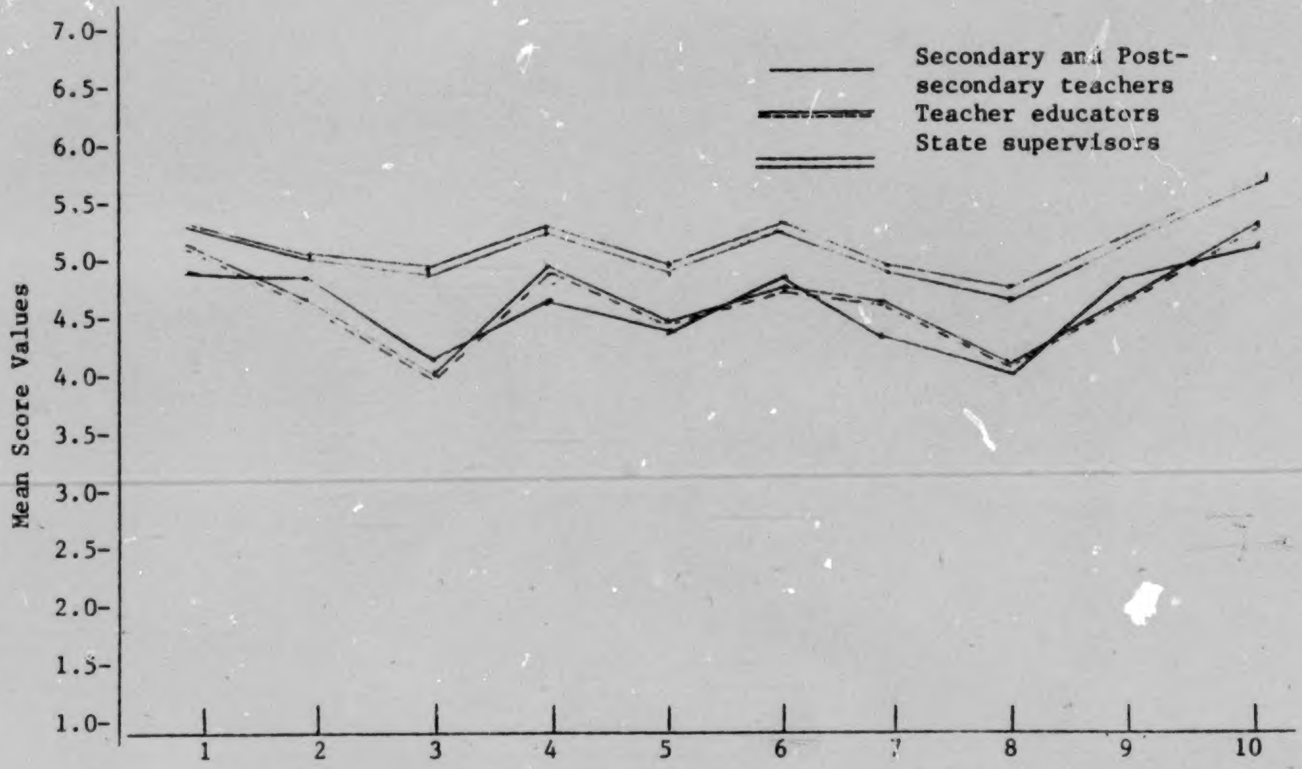
The F ratio only examines how closely the groups cluster together. Since there was deviation from this cluster, one may infer that there was somewhere among the groups being analyzed at least one group that differed from at least one other group by an amount greater than would have been expected by sampling variation. The F ratio will not tell which or even how many groups show scatter greater than that acceptable as sampling variation.

In order to get a better overall picture of the interrelationships existing in the data, the relationships are depicted graphically (see Figure 1). In this graph one can see evidenced the important patterns which yielded the significant F ratio previously computed.

The differences between the means for factors 1-10 were quite small. There was a close relationship between agreement with one factor and another factor; the lowest mean was 4.1 and the highest, 5.6.

The main inference which can be made from the graph was that state supervisors consistently showed stronger agreement, higher mean scores, with the competencies related to each of the ten factors than secondary and postsecondary teachers or teacher educators.

Without using multiple range tests, one could only conclude that probably secondary and postsecondary teachers, teacher educators, and state supervisors cannot be considered as a single multivariate population. Rather, they should be thought of as two populations--one consisting of teachers and teacher educators and the other consisting of state supervisors.



Factors by Number

FIGURE I

Graphic Comparison of Responses of Business and Office Education Personnel

Chapter 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The final chapter of this study includes: (1) a summary of the procedure of the study, (2) a summary of the findings, (3) the conclusions drawn from the findings, and (4) recommendations.

SUMMARY OF THE PROCEDURE OF THE STUDY

Purpose of the Study

The purpose of this study was to define the role of occupational experience in effective vocational education teacher preparation. In order to more clearly identify that role, the study was designed to answer the following questions:

1. What are the purposes of the occupational experience requirements for vocational teachers?

2. What are the teaching competencies needed by vocational teachers that can be developed through occupational experience?

The Samples

The study consisted of two distinct phases designed to accomplish the two objectives. Each of the phases was completed independently with the two populations of distributive education and business and office education personnel. The first procedure utilized a modified Delphi technique to identify the purposes of occupational experience requirements for vocational teachers. State supervisors and teacher educators were the populations identified to participate in the Delphi procedure. Random samples of teacher educators and state supervisors was selected from their respective national populations. Thirty-three teacher educators and state supervisors from distributive education and thirty-one from business and office educators completed all three rounds of the Delphi procedure.

A seven-point Likert scale opinionnaire was used in the second stage of the study to determine what teaching competencies needed by vocational education teachers can be developed through occupational experiences. The three major classifications of distributive and business and office education personnel--teachers, teacher educators, and state supervisors--were utilized as populations for the competency validation phase of the research.

Random samples of 15 percent of the distributive and business and office education teachers was drawn from the respective populations of teachers from Colorado, Iowa, Kansas, Minnesota, and Missouri. The population in each state consisted of all secondary and post-secondary distributive and business and office education teachers meeting the requirements for teaching established by the respective state departments of education and currently teaching in vocational programs in those states. A random sample of 30 percent of the national populations of distributive education state supervisors and teacher educators was selected to participate in the competency validation procedure.

A random selection of returned questionnaires was made from each group to provide a proportionate stratified sample for data analysis. The final sample consisted of a 10 percent sample of each state's population of teachers and a 20 percent sample of the national populations of state supervisors and teacher educators.

Data Collection

Identification of Purposes. A comprehensive literature review was completed to develop an original listing of purposes of occupational experience to be used in the Delphi procedure. A five-point Likert scale was developed to collect the opinions of Delphi panel members on each of the purpose statements. The scale allowed participants to select a response ranging from strongly agree to strongly disagree on each of the statements.

The first Delphi questionnaire consisting of seventeen purpose statements and the five-point Likert scale was mailed to 36 panel members. Panel members were asked to (1) evaluate each of the statements using the Likert scale, (2) revise or reword the purpose statement if desired, and (3) add any additional purposes for panel members to consider in future rounds.

When the questionnaires were returned, mean scores were computed for each of the purposes, rewording suggestions were incorporated, and additional purposes were added at the recommendation of panel members.

A second questionnaire was developed from the data collected and mailed to Delphi panel members. Participants were asked to review the summary of responses from round one and then to complete the second questionnaire.

A third questionnaire was developed from the data collected in round two and mailed to participants. Participants were asked to review the summary of responses from round two, complete the questionnaire by responding to each statement on a five-point Likert scale, and justify any response that was different from the majority opinion of panel members. Mean scores were completed for each of the purposes at the conclusion of the third round of the Delphi procedure.

Validation of Competencies. The second phase of the study was designed to determine the importance of occupational experience in developing the teaching competencies needed by vocational education teachers. A comprehensive identification and validation of the competencies needed by vocational education teachers was completed by Cotrell and others in 1972. (See Appendix D) That listing of 384 performance elements was refined in a continuation of the research project into 100 competency statements. The 100 competencies were classified within ten major components of the vocational teacher's role. (See Appendix G) As a result of a field test, the competency list was refined to 95 statements for final evaluation.

A seven-point Likert scale was developed to collect the opinions of participants on the value of occupational experience in developing teaching competencies. A series of demographic questions were developed to be used in analyzing the opinions of participants.

The competency-validation questionnaire was mailed to random samples of distributive and business and office education teachers, teacher educators, and state supervisors. A random selection of returned questionnaires was made to provide proportionate stratified samples for data analysis.

Analysis of Data

Analysis of data was completed independently for distributive and business educators.

At the conclusion of round three of the Delphi procedure, frequencies and mean scores were computed for each of the purposes. Those purpose statements which had received a consensus from panel members were then ranked in a hierarchy using the mean score of each statement.

A frequency distribution was developed, and a mean score was calculated for each of the competency statements. Competencies were ranked by mean score for each of the participating groups of teachers, teacher educators, and state supervisors. A composite ranking of competencies was developed by equally weighting the responses of the three groups within the two service areas. Those competencies with a mean score of 5.00 or higher were accepted as competencies that can be developed through occupational experience. Mean scores were computed for each of the ten components of a vocational teacher's role by accumulating the responses on all competency statements relating to each component. The components were then ranked in a hierarchy of importance using the mean scores.

A Pearson product moment correlation was computed on each of the components to determine if significant relationships existed between the opinions of respondents and their years of teaching experience, years of distributive education teaching experience, years of occupational experience, years of occupational experience in distributive occupations, the recency of occupational experience, or level of educational attainment. No significant relationships were found within distributive education or business and office education.

Using mean scores, rankings of the ten components were determined for each of the respective samples of teachers, teacher educators, and state supervisors. The rankings of the three groups were then compared suing the Spearman rank-order correlation to determine if significant differences of opinion existed among the three groups. The three group responses were significantly correlated at the .05 level in both distributive education and business and office education.

A multi-variate analysis of variance was used to test if significant differences existed in the responses of participants based on the type of job currently held, the nature of that job, or their level of educational attainment. No significant differences were found on any of the identified factors within distributive education. Within business and office education it was found that the variablility of responses of business and office education secondary and postsecondary teachers, teacher educators, and state supervisors to the teaching competency statements related to each of the ten factors in the role of the vocational teacher was great enough to indicate that it was caused by something other than sampling distribution. A graphical depiction of the inter-relationships indicated that state supervisors consistently showed stronger agreement with the competencies related to all of the ten factors than secondary and postsecondary teachers or teacher educators.

CONCLUSIONS

From an analysis of the data gathered in this study, the following conclusions can be drawn.

1. The purposes of occupational experience for vocational education teachers as identified by independent panels of distributive education and business and office education teacher educators and state supervisors are:

To develop confidence in one's abilities and skills.

To provide a general knowledge and understanding of the nature and requirements of specific occupations.

To develop, improve, apply and/or integrate technical competencies of an occupation.

To obtain an overall picture of the organization of a business.

To learn about new technologies in business and industry.

To experience the actual stress, pressures, frustrations, and sense of achievement that are a part of every job.

To obtain information about current business standards.

To develop interpersonal skills involving relations with fellow workers, supervisors, and clients.

To formulate realistic concepts of career opportunities.

2. Seven additional purposes were identified only by the distributive education panel and one additional purpose was identified only by the business and office education panel. This supports the conclusion that there are unique purposes of occupational experience for each of the service areas.

3. The teaching competencies needed by vocational education teachers that can be developed through occupational experiences are:

PROGRAM PLANNING, DEVELOPMENT, AND EVALUATION.
- Develop a course of study.
- Conduct an occupational analysis.
- Develop vocational education program goals and objectives.
- Develop long range plans for a vocational program.
- Organize or reorganize an occupational advisory committee.
- Evaluate your vocational program.
- Maintain an occupational advisory committee.

INSTRUCTIONAL PLANNING
- Plan a unit of instruction.
- Write student performance objectives.

INSTRUCTIONAL EXECUTION.
- Direct student laboratory experiences.
- Conduct individual and group field trips.
- Direct the project method.

INSTRUCTIONAL EVALUATION.
- Establish criteria for student performance in a vocational education program.

INSTRUCTIONAL MANAGEMENT.

- Organize and maintain the vocational laboratory.

GUIDANCE.

- Assist students in applying for employment or further education.
- Plan and conduct classroom and related activities on educational and career opportunities.

SCHOOL-COMMUNITY RELATIONS.

- Provide service to and maintain liaison with members of the community.
- Develop a plan for school-community relations.
- Give presentations to school and community groups to promote a vocational educational program.

PROFESSIONAL ROLE AND DEVELOPMENT.

- Keep up-to-date in your occupational specialty.
- Keep up-to-date in your profession.
- Select and obtain a job in keeping with your professional qualifications.
- Plan and provide laboratory experiences for prospective teachers.

COORDINATION.

- Evaluate students on the job.
- Coordinate and supervise on-the-job instruction.
- Identify and secure prospective training stations.
- Develop training agreements and training plans for placing students on the job.
- Plan and conduct related instruction.
- Develop the training ability of on-the-job instructors.
- Establish criteria and guidelines for initiating a cooperative vocational education program.

4. Nine additional competencies were identified by distributive education personnel and two additional competencies were identified by business and office education personnel. This supports the conclusion that there are unique competencies that can be developed through occupational experiences for each service area.

5. The value placed on occupational experience in developing teaching competencies is not significantly affected by length or recency of the occupational experience of distributive and business and office education personnel.

6. The value placed on occupational experience in developing teaching competencies is not significantly affected by the length of teaching experience of distributive and business and office education personnel.

7. The value placed on occupational experience in developing teaching competencies is not significantly affected by the level of educational attainment of distributive and business and office education personnel.

RECOMMENDATIONS

Based on the findings and conclusions of this study, the following recommendations are made:

1. Occupational experience requirements for vocational education teachers should be based on needed competencies rather than the length of such experience.

2. The technical competencies required of vocational education teachers that can be developed through occupational experience should be identified.

3. Vocational teacher education institutions should incorporate the purposes and competencies identified in this study within appropriate elements of teacher preparation programs.

4. The purposes of and competencies developed through occupational experience should be identified for each vocational service areas to determine the commonalities and differences that exist.

5. Research should be conducted to determine the most effective and efficient means of developing the competencies identified in this study.

6. Controlled experiments should be completed to determine the specific effects of occupational experience on vocational teacher performance.

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APPENDICES

THE UNIVERSITY OF NEBRASKA–LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

Appendix A

September 15, 1975

As a distributive education teacher educator, you probably have heard questions about varied lengths and types of occupational experience required for vocational certification in various states in the U. S. If the occupational experiences that contribute significantly to the development of effective vocational teachers could be defined, the results could help to clarify occupational experience requirements.

Before this can be accomplished there must be general agreement on the purposes of work experience for vocational teachers. Your help and cooperation is being asked to obtain consensus among a group of teacher educators and state supervisors in distributive education on the purposes of such experience.

The method to be used in obtaining a consensus will be a modified Delphi Technique. If you will participate as a member of a panel of experts, you will be among approximately 30 people responding to three brief questionnaires between September 20 and December 1, 1975.

I recogmize that I am asking for a portion of your valuable time, but I believe you will find the questionnaires interesting. Results of this study should be of value in defining the benefits of occupational experience to vocational teachers.

Can I count on your help? I will call you in a few days to see if you will be willing to participate in this research.

Sincerely,

Jim Burrow
Distributive Education
Teacher Educator

THE UNIVERSITY OF NEBRASKA–LINCOLN THE UNIVERSITY OF NEBRASKA AT OMAHA
THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

THE UNIVERSITY OF NEBRASKA-LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

September 30, 1975

Thank you for agreeing to participate in our research efforts. You are one of approximately thirty distributive education state supervisors and teacher educators participating in a Delphi procedure to determine the purposes of occupational experience for vocational education teachers. Because of the small number of panel members, it is very important that you respond to each of three questionnaires you will receive in the next three months.

The enclosed questionnaire contains a list of purposes obtained from a review of the literature. Please designate your agreement or disagreement with those statements according to the instructions. On each succeeding questionnaire you will be asked to reconsider your original opinions based upon feedback from other panel members. The goal is to identify the commonly agreed-upon purposes of occupational experience for vocational teachers.

One of the features of the Delphi procedure is the anonymity of responses. Panel members names will not be disclosed until after completion of the research, and the source of individual responses and comments will never be revealed. Each questionnaire is coded only for identification purposes to assist in the follow-up of unreturned forms.

We consider this an important research effort in vocational teacher education, and ask for your expert judgment in responding to the three questionnaires. Please complete the first questionnaire and return it in the enclosed envelope within ten days. Your prompt response will help ensure the rapid completion of the Delphi procedure.

Sincerely,

Jim Burrow

Enclosures: 2

THE UNIVERSITY OF NEBRASKA-LINCOLN THE UNIVERSITY OF NEBRASKA AT OMAHA
THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS

Questionnaire I

The following statements have been cited in the literature as purposes of occupational experiences for vocational education teachers. Please evaluate each purpose as to its value in developing an effective vocational teacher. Circle the symbol that best indicates your agreement or disagreement with each purpose.

SD = Strongly disagree (This definitely is not a purpose of occupational experience.)

D = Disagree (This probably is not a purpose of occupational experience.)

U = Undecided

A = Agree (This probably is a purpose of occupational experience.)

SA = Strongly agree (This definitely is a purpose of occupational experience.)

Use the space below each statement if you want to revise the wording of the purpose. However, please respond to the statement as it is worded rather than your revision.

If you feel there are additional purposes that you believe should be included, add them on the blank lines at the end of the questionnaire.

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD D U A SA 1. to develop confidence in one's abilities and skills.

____

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SD D U A SA 2. to provide a general knowledge and understanding of the nature and requirements of specific occupations.

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____

SD D U A SA 3. to integrate theory learned in school with actual practice on a job.

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SD D U A SA 4. to develop, improve, apply and/or integrate technical competencies of an occupation.

____

____

SD D U A SA 5. to obtain an overall picture of the organization of a business.

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SD D U A SA 6. to learn about new technologies in business and industry.

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____

SD D U A SA 7. to develop a philosophy of work.

____

____

SD D U A SA 8. to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

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SD D U A SA 9. to understand and use the language of the business world.

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____

SD D U A SA 10. to obtain information about current business standards.

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____

SD D U A SA 11. to understand the relationships among businesses.

____

____

SD D U A SA 12. to become acquainted with resource materials and people in business.

____

____

SD D U A SA 13. to develop work habits that have broad application to the jobs they will hold during their lifetime.

____

____

SD D U A SA 14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.

____

____

SD D U A SA 15. to improve the image of teachers in the business community.

____

____

SD D U A SA 16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.

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SD D U A SA 17. to formulate realistic concepts of career opportunities.

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ADDITIONAL PURPOSES:

18. ______________________________

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19. ______________________________

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20. ______________________________

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THE UNIVERSITY OF NEBRASKA–LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

TO: State Supervisor and Teacher Educator Panel Members
FROM: Jim Burrow
DATE: November 1, 1975
SUBJECT: Occupational Experience Questionnaire Two

Thank you for responding to the first questionnaire on occupational experience for vocational teachers. A few questions were raised by respondents and the following clarifications should be considered as you respond to the second questionnaire:

1) The purposes listed were selected as appropriate for all vocational education teachers. We did not find major support in the literature for differentiating between preservice and inservice teachers. Our objective is to determine the purposes of occupational experience for all vocational education teachers. It would seem possible then to determine within pre-and inservice programs which purposes to emphasize.

2) The statements on these questionnaires are written as general purposes of occupational experiences and are not designed to be specific objectives or competency statements. The second stage of the study will be designed to verify competencies derived from the purposes. At this point we are concerned only with general purposes.

3) Occupational experience in this study refers to all job experiences of the prospective or inservice teacher. It can include supervised experiences within the teacher preparation program as long as those experiences involve actual work experience.

The Delphi Technique we are utilizing is designed to develop agreement among a group of experts. In this round, you have been given the responses of the total group to the original list of purposes. Please respond to the second questionnaire according to the enclosed instructions after reviewing the responses of the other panel members.

The time you are spending on this study is certainly appreciated. The effectiveness of this research procedure depends on a 100% response, so please return the second questionnaire in the enclosed envelope as soon as possible. Again, thank you for your cooperation.

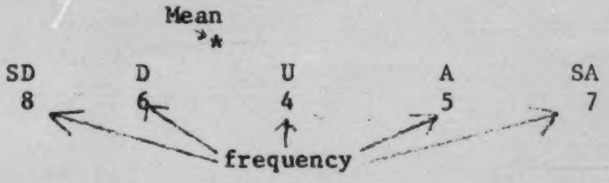
bjb

Enclosure

THE UNIVERSITY OF NEBRASKA–LINCOLN THE UNIVERSITY OF NEBRASKA AT OMAHA
THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

INSTRUCTIONS

The responses of the panel of experts to the first questionnaire have been summarized and are reported to you on the enclosed buff colored paper. For each purpose listed you have been provided with the frequency for each response category, and the mean score (shown as an *). A sample response would appear as follows:



A second questionnaire is enclosed printed on green paper. Each of the statements on the second questionnaire corresponds to the statement with the same number on the first questionnaire. However, the wording may be revised for clarity.

1. Please review each purpose statement and the responses of the panel of experts.

2. Based upon the group ratings and your expertise, re-evaluate the purpose on the second questionnaire as to its value in developing an effective vocational teacher. Circle the symbol that best indicates your agreement or disagreement with each purpose.

SD = Strongly disagree (This definately is not a purpose of occupational experience.)
D = Disagree (This probably is not a purpose of occupational experience.)
U = Undecided.
A = Agree (This probably is a purpose of occupational experience.)
SA = Strongly Agree (This definately is a purpose of occupational experience.)

REMEMBER--we are concerned with the purposes of occupational experience.

3. If your response on the second questionnaire falls outside the brackets [ ], please include a brief written justification for your response. These comments will be anonymously reported to the panel members in the third round.

4. Once again, if you would like to revise the wording of the purpose do so; however, please respond to the statement as it is worded.

5. At the end of the second questionnaire, additional purposes have been added that were suggested by two or more panel members during the first round. Please respond to each of those purposes by circling the appropriate symbol.

SUMMARY OF RESPONSES IN QUESTIONNAIRE I

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD	D	U	A*	SA
0	1	2	13	17

1. to develop confidence in one's abilities and skills.

SD	D	U	A	*SA
0	1	0	8	25

2. to provide a general knowledge and understanding of the nature and requirements of specific occupations.

SD	D	U	A	* SA
0	2	1	7	24

3. to integrate theory learned in school with actual practice on a job.

SD	D	U	A*	SA
0	2	1	10	21

4. to develop, improve, apply and/or integrate technical competencies of an occupation.

SD	D	U	A*	SA
0	1	1	16	16

5. to obtain an overall picture of the organization of a business.

SD	D	U	A*	SA
0	1	1	15	17

6. to learn about new technologies in business and industry.

SD	D	U	A*	SA
0	2	2	14	16

7. to develop a philosophy of work.

SD	D	U	A*	SA
0	2	0	8	24

8. to experience the actual stress, pressures, sense of achievement that are part of every job.

SD	D	U	A*	SA	9.	to understand and use the language of the business world.
0	0	0	14	20		
SD	D	U	A*	SA	10.	to obtain information about current business standards.
0	2	2	15	15		
SD	D	U	*A	SA	11.	to understand the relationships among businesses.
0	2	6	20	5		
SD	D	U	A	*SA	12.	to become acquainted with resource materials and people in business.
0	3	0	17	14		
SD	D	U*	A	SA	13.	to develop work habits that have broad application to the jobs they will hold during their lifetime.
2	10	1	11	10		
SD	D	U	A	*SA	14.	to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
0	3	0	8	23		
SD	D	U*	A	SA	15.	to improve the image of teachers in the business community.
2	13	8	5	6		
SD	D	U*	A	SA	16.	to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.
1	8	6	11	8		
SD	D	U	A*	SA	17.	to formulate realistic concepts of career opportunities.
0	1	1	17	14		

QUESTIONNAIRE II

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD D U [A SA] 1. to develop confidence in one's abilities and skills.
Justification:

SD D U A [SA] 2. to provide a general knowledge and understanding of the nature and requirements of specific occupations.
Justification:

SD D U A [SA] 3. to integrate theory learned in school with actual practice on a job.
Justification:

SD D U A [SA] 4. to develop, improve, apply and/or integrate technical competencies of an occupation.
Justification:

SD D U [A SA] 5. to obtain an overall picture of the organization of a business or other occupational environments.
Justification:

SD D U [A SA] 6. to learn about technologies, trends and practices in business and industry.
Justification:

SD D U [A SA] 7. to develop a philosophy of work
Justification:

SD D U A [SA] 8. to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.
Justification:

SD D U A [SA] 9. to understand and use the language of the business world.
Justification:

SD D U [A SA] 10. to obtain information about current business standards.
Justification:

SD D U [A] SA 11. to understand the relationships that occur among businesses.
Justification:

SD D U [A SA] 12. to become acquainted with resource materials and people in business and industry that can be utilized in the classroom.
Justification:

SD D U A SA 13. to develop work habits that have broad application to the jobs the teacher will hold. (JUSTIFY ALL RESPONSES)
Justification:

SD D U A [SA] 14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
Justification:

SD [D] U A SA 15. to improve the image of teachers in the business community.
Justification:

SD D U A SA 16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards. (JUSTIFY ALL RESPONSES)
Justification:

SD D U A SA 17. to formulate realistic concepts of career opportunities in business and industry.
Justification:

The following purposes were suggested by two or more panel members during the first round. Please indicate your agreement or disagreement with the statements by circling the appropriate symbol. Reword the statements if you desire.

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR
VOCATIONAL EDUCATION TEACHERS ARE:

SD D U A SA 18. to add to the credibility of the teacher in the eyes of the student.

SD D U A SA 19. to develop an understanding of the private enterprise system and the social and economic responsibilities of the business community.

SD D U A SA 20. to develop an empathy with students in their role as beginning employees.

Add any additional purposes you would like the panel to consider:

PLEASE RETURN THE TWO GREEN PAGES IN THE ENCLOSED ENVELOPE

THE UNIVERSITY OF NEBRASKA-LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

TO: State Supervisor and Teacher Educator Panel Members
FROM: Jim Burrow
DATE: December 12, 1975
SUBJECT: Third Questionnaire on the Purposes of Occupational Experience for Vocational Education Teachers

We are moving toward agreement on the purposes of occupational experience for vocational education teachers, and I want to thank you again for the amount of time you are devoting to the project. The green colored pages contain a summary of the results of the second round. Please note the responses of the panel members to each statement. Pay particular attention to the comments written by those who disagree with the majority opinion as you complete the next questionnaire.

The third (and hopefully, final) questionnaire is enclosed for your reaction. Please read the questionnaire carefully and follow the instructions given on the enclosed instruction sheet.

Those purposes that have received consensual agreement or disagreement from panel members have been eliminated from the third round. When you have completed the questionnaire, please return the buff colored pages only as soon as possible in the enclosed envelope.

Again thank you for your cooperation and participation.

bjb

Enclosures

INSTRUCTIONS

The responses of the panel of experts to the second questionnaire have been summarized and are reported to you on the enclosed green-colored paper. For each purpose listed you have been provided with the frequency for each response category, and the mean score (shown as an *). A sample response would appear as follows:

Mean

SD	D	*U	A	SA
8	6	4	5	7

Frequency

In addition, the comments made by panel members have been summarized after each purpose statement.

The third questionnaire is enclosed printed on buff-colored paper. Each of the statements on the summary pages (green) corresponds to the statement with the same number on Questionnaire Three. Only the statements that have not yet received a consensus from the panel are included on this questionnaire.

1. Please review each purpose statement, the responses of the panel of experts, and the comments.

2. Based upon the group ratings and your expertise, re-evaluate the purpose on the third questionnaire as to its value in developing an effective vocational teacher. Circle the symbol that best indicates your agreement or disagreement with each purpose.

SD = Strongly Disagree (This definately is not a purpose of occupational experience.)
D = Disagree (This probably is not a purpose of occupational experience.)
U = Undecided
A = Agree (This probably is a purpose of occupational experience.)
SA = Strongly Agree (This definately is a purpose of occupational experience.)

REMEMBER --we are concerned with the purposes of occupational experience for vocational education teachers!

3. If your response on the questionnaire falls outside the brackets [], please include a brief written justification of your response.

We are trying to determine areas of common agreement among experts in distributive education, so please carefully consider the responses given by other panel members as you complete Questionnaire Three. Please complete the questionnaire as soon as possible and return the buff-colored pages only.

SUMMARY OF RESPONSES IN QUESTIONNAIRE II

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD 0	D 0	U 0	A* 18	SA 13	1.	to develop confidence in one's ability and skills.
SD 0	D 0	U 0	A 2	*SA 29	2.	to provide a general knowledge and understanding of the nature and requirements of specific occupation.
SD 0	D 1	U 2	A 2	*SA 26	3.	to integrate theory learned in school with actual practice on a job: Comments: What about the individual who acquires occupational experience prior to beginning a teacher education program. There is no opportunity to integrate class theory. The theory learned in many of our university courses is not always applicable in the real world and course work too often does not match job responsibility. I don't feel the primary reason for work experience for a teacher is to put business courses to practice. This is true for students, but not for teachers in their role as a teacher.
SD 0	D 0	U 2	A 1	*SA 28	4.	to develop, improve, apply and/or integrate technical competencies of an occupation. Comments: This would depend upon length of experience. It should be a minimum of one year in a full-time paid, supervised job in the teachers occupational field. Degree of improvement does not need specific hands-on experience.
SD 0	D 0	U 0	A 18	*SA 13	5.	to obtain an overall picture of the organization of a business.
SD	D	U	A	*SA	6.	to learn about new technologies in business and industry.

SD	D	U	A*	SA
0	0	2	15	14

7. to develop a philosophy of work.

Comments:

The time element should be involved. No philosophy is truly developed in three months or even a year though a beginning may be made.

It seems to me that the values of most students are quite firm at this point. My guess is that very little change in behavior takes place during occupational experience.

I believe that the work experience alone is but one component of an overall philosophy of work.

SD	D	U	A	*SA
0	0	0	2	29

8. to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

SD	D	U	A	*SA
0	0	0	2	29

9. to understand and use the language of the business world.

SD	D	U	A*	SA
0	0	1	17	13

10. to obtain information about current business standards.

SD	D	U	*A	SA
0	0	2	27	2

11. to understand the relationships among businesses.

Comments:

At best only a few such relationships could be fully understood within the context of work experience.

SD	D	U	A*	SA
0	2	0	19	10

12. to become acquainted with resource materials and people in business.

Comments:

It comes out of date too quickly.

This is true only if the experience occurs in the community where the teacher is employed.

SD	D	U*	A	SA
2	8	4	11	6

13. to develop work habits that have broad application to the jobs they will hold during their lifetime.

Comments:

Seems out of context with other purposes.

Any competency acquired from any work setting can be applied to the functions of a teacher-coordinator. The person must be able to apply theory to practice and be able to teach as it is in the business world. Occupational experience is for the ultimate benefit of the student...not the teacher.

Obvious.
I see this as applicable to pre service occupational experience but not of much value to people in service whose work habits are set.
The teacher should be aware of the differences between his job and those in private enterprise.
Developing work habits is good!
I do not feel that this is a justified reason for teachers to have occupational experience because there are very significant differences in the business world and education.
We cannot give to others what we don't have. Work habits held on the job have no appreciable impact upon teaching success.

SD	D	U	A	*SA
0	3	0	2	26

14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
Comments:
I believe interpersonal competencies do not develop in the work environment. At least one recent research study supports this position.
Teachers should have these skills before this time.

SD	D*	U	A	SA
2	22	0	4	3

15. to improve the image of teachers in the business community.
Comments:
A teacher that has demonstrated successful competencies should be better accepted by the business people. Not a purpose, but a concomitant.
Expert practitioners are needed in education.
It adds prestige to the teacher's position.
Public relation is part of our job.
Occupational competent teachers when in contact with the community certainly command a greater respect for the educational profession.

SD	D	U*	A	SA
1	10	4	11	5

16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.
Comments:
The ability of the individual to adjust to new situations is 80% of the success to be achieved.
This has no real impact upon success as a vocational teacher.

SD	D	U	A*	SA		
0	0	1	19	11	17.	to formulate realistic concepts of career opportunities.

SD	D	U	A*	SA		
					18.	to add to the credibility of the teacher in the eyes of the student. Comments: The relating of cases to teach a point is much more effective than a book reference.

SD	D	U	A*	SA		
1	0	5	11	14	19.	to develop an understanding of the private enterprise system and the social and economic responsibilities of the business community. Comments: Some people can work for years and gain a great amount of occupational experience and become good vocational teachers and still not develop this understanding. Read "The Screwing of the Average Man" by David Hapgood. I don't know that we should have this as a purpose. A non-experienced teacher would still be tempted to speak only from the consumer viewpoint.

SD	D	U	A *	SA		
0	0	1	15	15	20.	to develop an empathy with students in their role as beginning employees.

QUESTIONNAIRE III

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD D U A [SA] 3. to integrate theory learned in school with actual practice on the job.
Justification:

SD D U A [SA] 4. to develop, improve, apply and/or integrate technical competencies of an occupation.
Justification:

SD D U [A SA] 7. to develop a philosophy of work.
Justification:

SD D U [A] SA 11. to understand the relationships that occur among businesses.
Justification:

SD D U [A] SA 12. to become acquainted with resource materials and people in business and industry that can be utilized in the classroom.
Justification:

SD D U A SA 13. to develop work habits that have broad application to the jobs the teacher will hold. (JUSTIFY ALL RESPONSES)
Justification:

SD D U A [SA] 14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
Justification:

SD [D] U A SA 15. to improve the image of teachers in the business community.
Justification:

SD D U A SA 16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards. (JUSTIFY ALL RESPONSES)
Justification:

SD D U [A SA] 18. to add to the credibility of the teacher in the eyes of the student.
Justification:

SD D U [A SA] 19. to develop an understanding of the private enterprise system and the social and economic responsibilities of the business community.
Justification:

PLEASE RETURN THE TWO BUFF-COLORED PAGES IN THE ENCLOSED ENVELOPE AS SOON AS POSSIBLE.

Appendix B

September 11, 1975

As a (state supervisor/vocational teacher educator) of business and office education, you probably have heard people question the varied lengths and types of occupational experience required to obtain vocational certification or approval in different states in the U.S. If the occupational experiences that contribute significantly to the development of an effective vocational teacher could be identified, the result would certainly help bring about realisitic occupational experience requirements.

Before this can be accomplished, there must be general agreement on the purposes of work experience for vocational teachers. Then, after agreement has been reached, teaching competencies can be derived and verified for each of the agreed-upon purposes. Your help and cooperation is being asked to obtain consensus among a group of vocational teacher educators and state supervisors in business and office education on the purposes of occupational experience for vocational teachers.

The method to be used in obtaining a consensus, the Delphi Technique, will employ the use of a series of questionnaires interspersed with feedback from the group. If you participate as a member of this panel of experts, you will be among approximately 30 people asked to respond between September 15 and December 1, 1975 to these brief questionnaires.

I recognize that I am asking for a portion of your valuable time, but I believe you will find the questionnaires stimulating and interesting. Results of this study combined with results from an identical study in distributive education should be of value in defining the actual benefits of occupational experience to the vocational teacher.

I will call you in a few days to see if you will be willing to participate in this research.

Sincerely,

Nancy Groneman

September 22, 1975

As a selected (state supervisor/ teacher educator) in business and office education, you will be involved during the next three months in a relatively new method of data collection, the Delphi Technique. This technique will be used to obtain agreement on the purposes of occupational experience for vocational education teachers. It will involve a series of three questionnaires which will derive information from a group of specialists on an anonymouse basis and feed the collected information back to the group.

On the first questionnaire, you will be asked to designate your agreement or disagreement with a list of purposes of work experience obtained from literature. The second and third questionnaires will give you a chance to reconsider your original opinions based on feedback from the group.

Please return the questionnaire in the enclosed envelope within the next two weeks. Each questionnaire is coded for purposes of identification only to assist in follow-up of forms unreturned by the third week.

Sincerely,

Nancy Groneman

Enclosures

THE PURPOSE OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS

Questionnaire I

The following statements have been cited in the literature as purposes of occupational experiences for vocational education teachers. Please evaluate each purpose as to its value in developing an effective vocational teacher. Circle the symbol that best indicates your agreement or disagreement with each purpose.

SD = Strongly disagree (This definitely is not a purpose of occupational experience.

D = Disagree (This probably is not a purpose of occupational experience.)

U = Undecided

A = Agree (This probably is a purpose of occupational experience.)

SA = Strongly agree (This definitely is a purpose of occupational experience.

Use the space below each statement if you want to revise the wording of the purpose. However, please respond to the statement as it is worded rather than your revision.

If you feel there are additional purposes that you believe should be included, add them on the blank lines at the end of the questionnaire.

THE PURPOSES OF OCCUPATIONAL EXPEREINCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD D U A SA 1. to develop confidence in one's abilities and skills.

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SD D U A SA 2. to provide a general knowledge and understanding of the nature and requirements of specific occupations.

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____

SD D U A SA 3. to integrate theory learned in school with actual practice on a job.

____

____

SD D U A SA 4. to develop, improve, apply and/or integrate technical competencies of an occupation.

____

____

SD D U A SA 5. to obtain an overall picture of the organization of a business.

____

____

SD D U A SA 6. to learn about new technologies in business and industry.

____

____

SD D U A SA 7. to develop a philosophy of work.

____

____

SD D U A SA 8. to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

____

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SD D U A SA 9. to understand and use the language of the business world.

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SD D U A SA 10. to obtain information about current business standards.

____

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SD D U A SA 11. to understand the relationships among businesses.

____

____

SD D U A SA 12. to become acquainted with resource materials and people in business.

____

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SD D U A SA 13. to develop work habits that have broad application to the jobs they will hold during their lifetime.

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SD D U A SA 14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.

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SD D U A SA 15. to improve the image of teachers in the business community.

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SD D U A SA 16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.

____

____

SD D U A SA 17. to formulate realistic concepts of career opportunities.

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ADDITIONAL PURPOSES:

18.____

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19.____

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20.____

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October 22, 1975

Thank you for your response to the previous questionnaire.

Again, I would like to emphasize the fact that these purposes are stated in general terms to cover both supervised and unsupervised occupational experience for pre-service and in-service teachers.

Enclosed is the second questionnaire which consists of your responses from Questionnaire I in terms of mean and frequency. The number of responses for each category of agreement-disagreement is given directly below the category designation. The mean is marked with an *. Any recommended changes in wording are given below each original statement of purpose.

Additional purposes were not added to this questionnaire because there were no statements of similar content recommended by two or more people. However, if you still believe that a purpose should be added to this list, please write it down again and justify its importance.

Please return the questionnaire in the enclosed envelope within the next two weeks.

Sincerely,

Nancy Groneman

Enclosures

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS

Questionnaire II

Please follow the instructions below in completing this questionnaire.

1. Consider the mean and frequency of responses for each statement of purpose which are based on your responses to the first questionnaire. These results are given on the left half of the pages.

2. Re-evaluate each purpose as to its value in developing an effective vocational teacher.

3. Consider any differences in wording between the purposes on the first questionnaire and the second questionnaire which is given on the right half of each page.

4. Circle the symbol that best indicates your agreement or disagreement with each purpose.

SD = Strongly disagree (This definitely is not a purpose of occupational experience.)

D = Disagree (This probably is not a purpose of occupational experience.)

U = Undecided

A = Agree (This probably is a purpose of occupational experience.)

SA = Strongly agree (This definitely is a purpose of occupational experience.)

5. If your response falls outside of the categories enclosed with brackets, justify your position with a very brief comment below the statement. Everyone will justify their position for purposes numbered 13 and 15.

6. If you believe there are additional purposes which should be included, add them on the blank lines at the end of the questionnaire and briefly explain their importance.

RESPONSES TO QUESTIONNAIRE I

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD	D	U	A	SA		
	3	2	14 *	10	1.	to develop confidence in one's abilities and skills.
						to develop further one's confidence . . .
			7	22 *	2.	to provide a general knowledge and understanding of the nature and requirements of specific occupations.
						to provide more than a general knowledge . . . to secure a general knowledge . . . to provide a specific knowledge . . . to provide additional knowledge and a deeper understanding . . .
			5	24 *	3.	to integrate theory learned in school with actual practice on a job.
						to integrate further the theory . . .
			14 *	15	4.	to develop, improve, apply and/or integrate technical competencies of an occupation.
						to develop, improve, apply and/or integrate further technical competencies . . . a triple-barrelled question
1		3	9 *	16	5.	to obtain an overall picture of the organization of a business.
						to broaden one's concept of the organization of a business
	1		11 *	16	6.	to learn about new technologies in business and industry.
						to learn further about new technologies in business and industry applicable to the careers their students are likely to pursue.

SD	D	U	A	SA	7.	to develop a philosophy of work.
	4	2	16	7		
			*			
						to develop *further one's* philosophy of work.
SD	D	U	A	SA	8.	to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.
	2	2	6	10		
			*			
						to experience further the actual stress . . .
SD	D	U	A	SA	9.	to understand and use the language of the business world.
	2	1	16	9		
			*			
						to *develop further one's understanding of and one's ability to use* the language of the business world.
						to acquire an understanding of the language . . .
SD	D	U	A	SA	10.	to obtain information about current business standards.
	2	1	10	16		
			*			
						to obtain *additional* information . . .
SD	D	U	A	SA	11.	to understand the relationships among businesses.
	4	7	16	2		
			*			
						to *develop further one's understanding* of the relationships among businesses.
SD	D	U	A	SA	12.	to become acquainted with resource materials and people in business.
	3	1	19	6		
			*			
						to become *further* acquainted. . .
SD	D	U	A	SA	13.	to develop work habits that have broad application to the jobs they will hold during their lifetime. .
2	10	3	9	5		
		*				
						to develop work habits that have broad application to the jobs they, as teachers, will hold during their lifetime.
						to develop a *further understanding* of work habits that have broad application to the jobs *their students* will hold during their lifetimes.
SD	D	U	A	SA	14.	to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
1	3	1	12	12		
			*			
						to develop a further understanding of interpersonal skills their students need

SD	D	U	A	SA		
	13	4	7	5	15.	to improve the image of teachers in the business community.
		*				to strengthen the image of teachers. . .

SD	D	U	A	SA		
1	7	3	14	4	16.	to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.
			*			to develop a further understanding of the abilities their students need to adjust to new surroundings, new personalities, new routines, and new standards.

SD	D	U	A	SA		
		1	13	15	17.	to formulate realistic concepts of career opportunities.
			*			to develop further realistic concepts of career opportunities that their students are likely to pursue.

QUESTIONNAIRE II

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD D U (A SA) 1. to develop confidence in one's abilities and skills

____

____

SD D U (A SA) 2. to secure specific knowledge and understanding of the nature and requirements of specific occupations.

____

____

SD D U (A SA) 3. to integrate theory learned in school with actual practice on a job.

____

____

SD D U (A SA) 4. to develop, improve, apply and/or integrate technical competencies of an occupation.

____

____

SD D U (A SA) 5. to obtain an overall picture of the organization of a business.

____

____

SD D U (A SA) 6. to learn about new technologies in business and industry.

____

____

SD D U (A SA) 7. to develop a philosophy of work.

____

____

SD D U (A SA) 8. to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.

____

____

SD D U (A SA) 9. to understand and use the language of the business world.

____

____

SD D U (A SA) 10. to obtain information about current business standards.

____

____

SD D U (A SA) 11. to understand the relationships among businesses.

____

____

SD D U (A SA) 12. to become acquainted with resource materials and people in business.

____

____

SD D U (A SA) 13. to develop work habits that have broad application to the jobs they, as teachers, will hold during their lifetime.

JUSTIFICATION________________________________

____

SD D U (A SA) 14. to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.

____

____

SD D U (A SA) 15. to improve the image of teachers in the business community.

JUSTIFICATION______________________________________

____

SD D U (A SA) 16. to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.

____

____

SD D U (A SA) 17. to formulate realistic concepts of career opportunities.

____

____

ADDITIONAL PURPOSES:

____

____

____

____

____

December 4, 1975

OCCUPATIONAL EXPERIENCE QUESTIONNAIRE

Again, thank you for your prompt response to the last questionnaire!

This is the final questionnaire you will receive. The results from the second questionnaire, in terms of mean, frequency and justification statements, are given on the yellow enclosures. The number of responses for each category of agreement-disagreement is given directly below the category designation. The mean is marked with an *. Justifications for responses are given below each original statement of purpose.

All purposes of occupational experience which had all responses fall in the agree/strongly agree categories are being accepted as purposes, and you will not be responding to those again. On this questionnaire you are asked to respond to those statements for which there was not agreement and to several new purposes.

Directions for filling out this final questionnaire are on an enclosed green sheet.

Please return the questionnaire in the enclosed envelope within the next two weeks.

Thank you for working with me on this study. Your efforts are sincerely appreciated.

Sincerely,

Nancy Groneman

Enclosures

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS

Questionnaire III

Please follow the instructions below in completing this questionnaire.

Consider the results and justifications given on Questionnaire II for the statements of purpose which are on Questionnaire III.

Circle the symbol that best indicates your agreement or disagreement with each purpose. You do not need to justify your responses.

These statements are reasons for vocational education teachers to have occupational experience. Beware of statements that reflect good teaching but could not be acquired through occupational experience.

SD = Strongly disagree (This definitely is not a purpose of occupational experience.)

D = Disagree (This probably is not a purpose of occupational experience.)

U = Undecided

A = Agree (This probably is a purpose of occupational experience.)

SA = Strongly agree (This definitely is a purpose of occupational experience.)

RESPONSES TO QUESTIONNAIRE II

THE PURPOSES OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD	D	U	A	SA		
		1	22	7	1.	to develop confidence in one's abilities and skills.
			*			
			1	29	2.	to provide a general knowledge and understanding of the nature and requirements of specific occupations.
				*		
			7	23	3.	to integrate theory learned in school with actual practice on a job.
				*		
			14	16	4.	to develop, improve, apply and/or integrate technical competencies of an occupation.
				*		
			15	15	5.	to obtain an overall picture of the organization of a business.
				*		
	1		9	20	6.	to learn about new technologies in business and industry.
				*		
	4	1	15	10	7.	to develop a philosophy of work.
			*			I'm not sure that occupational experience can provide this.
						Teachers should have developed philosophy of work prior to their occupational experience.
						To develop a philosophy of work as related to the American system.
						I'm being forced to agree but I cannot see that philosophy should be an objective - it may evolve.
			8	22	8.	to experience the actual stress, pressures, frustrations, and sense of achievement that are part of every job.
				*		

SD	D	U	A	SA		
	2		22 *	6	9.	to understand and use the language of the business world.

They already understand and use some of it before they go on a job.

Your work experience will not be broad enough to learn the jargon appropriate to each instructional area to which an instructor might be assigned.

SD	D	U	A	SA		
	1		11	18 *	10.	to obtain information about current business standards.

SD	D	U	A	SA		
	1	1	25 *	3	11.	to understand the relationships among businesses.

This often is incidental but as an objective I fail to agree with it.

They already have some understanding of this from preparatory courses.

SD	D	U	A	SA		
	1	1	23	5	12.	to become acquainted with resource materials and people in businesses.

They already have some acquaintanceship with such things and people from methods classes, etc.

SD	D	U	A	SA		
1	9	5 *	13	2	13.	to develop work habits that have broad application to the jobs they, as teachers, will hold during their lifetime.

Work habits have probably already been established.

The personal experience of developing desirable work habits enable the teacher to better instruct students to plan daily work schedules, to organize the desk, materials, and supplies, and to be more efficient.

Work habits are different in business and industry than in classroom situations.

If you teach it, you should be able to "tell" it like it is.

Not teacher work habits but industry habits so as to prepare students for employment.

Such characteristics as promptness, dependability, efficiency and loyalty are important in every job.

I have to agree with this one since it will involve their product and since work habits are important to holding a job.

The teacher must obtain occupational experience every few years so that he can more or less stay abreast of the changes in the business world. There are certain work habits that will always remain constant, such as being dependable; and it has broad application to jobs of all kinds.

They are going to develop work habits, as teachers, without work experience in business.

I believe the good work habits of business teachers are similar to those of business employees.

Important to know what it is like physically to do the work.

SD	D	U	A	SA		
			19	11	14.	to develop interpersonal skills involving relations with fellow workers, supervisors, and clients.
			*			
3	13	4	7	3	15.	to improve the image of teachers in the business community.
		*				

To show industry that teachers can meet occupational standards and thereby can prepare students for employment

Could improve image if teacher is good worker, but could be detrimental if he or she isn't

The teacher has an opportunity to work with influential employers and to promote public relations for school programs. A link between the school and the business world

The teacher's image is improved as that teacher produces a salable product for the community - the student.

I simply do not believe this will have a significant meaning in the business community.

I don't believe this should be considered an important goal of the experience - a good side effect but not a major goal.

Working outside the school won't improve the image of teachers.

Public relations are necessary but not a purpose of the occupational experience.

I feel teachers have already proved themselves - what is wrong with their image.

Business men and women can recognize the differences in the teacher who has had occupational training and the one who had only theroy.

Teachers must have the respect of the community as any other professional occupation.

DS	D	U	A	SA		
	4	2	20 *	4	16.	to develop the ability to adjust to new surroundings, new personalities, new routines, and new standard.

I'm not sure occupational experience will do this any better than classroom, social, or other experiences.

This is an attitude that is a part of one's personality; it deals with a degree of "open mindedness."

Teachers could do this on their teaching jobs, without taking a job in business.

The purpose of occupational experience is to insure that the teachers have knowledge and skill required for the specialized area they teach. How they adjust is not important in this case.

SD	D	U	A	SA		
			17 *	13	17.	to formulate realistic concepts of career opportunities.

QUESTIONNAIRE III

THE PURPOSE OF OCCUPATIONAL EXPERIENCE FOR VOCATIONAL EDUCATION TEACHERS ARE:

SD	D	U	A	SA	7.	to develop a philosophy of work.
SD	D	U	A	SA	9.	to understand and use the language of the business world.
SD	D	U	A	SA	11.	to understand the relationships among businesses.
SD	D	U	A	SA	12.	to become acquainted with resource materials and people in businesses.
SD	D	U	A	SA	13.	to develop work habits that have broad application to the jobs they, as teachers, will hold during their lifetime.
SD	D	U	A	SA	15.	to strengthen the image of teachers in the business community.
SD	D	U	A	SA	16.	to develop the ability to adjust to new surroundings, new personalities, new routines, and new standards.

ADDITIONAL PURPOSES

SD	D	U	A	SA	to develop a further understanding of work habits that have broad application to the jobs their students will hold during their lifetimes.
SD	D	U	A	SA	to become acquainted with potential candidates for the local advisory committee.
SD	D	U	A	SA	to provide another source of income and/or retirement benefits.
SD	D	U	A	SA	to provide another source of security for the teachers via jobs related to their training.

Appendix C

Distributive Education
Delphi Panel Members

THE TEACHER EDUCATORS

Mr. Don Richardson
Colorado State University
Ft. Collins, Colorado

Dr. Thomas White
Indiana University
Bloomington, Indiana

Dr. Steven B. Corbin
University of Northern Iowa
Cedar Falls, Iowa

Dr. Raymond Dannenberg
Western Michigan University
Kalamazoo, Michigan

Prof. Warren G. Meyer
University of Minnesota
Minneapolis, Minnesota

Mr. Norman Millikin
Montana State University
Bozeman, Montana

Dr. Neal Vivian
Ohio State University
Columbus, Ohio

Dr. Barry Reece
Virginia Polytechnic Institute
& State University
Blacksburg, Virginia

Dr. Steven Lucas
University of North Carolina
Greensboro, North Carolina

Dr. Rodney Davis
Ball State University
Muncie, Indiana

Dr. Roger Hutt
Arizona State University
Tempe, Arizona

Dr. James Pope
University of South Florida
Tampa, Florida

Dr. E. Edward Harris
Northern Illinois University
Dekalb, Illinois

Dr. Ralph Wray
Illinois State University
Normal, Illinois

Dr. Louis Graziano
Eastern Michigan University
Ypsilanti, Michigan

Dr. Joseph Hecht
Montclair State College
Upper Montclair, New Jersey

THE STATE SUPERVISORS

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Div. of Career-Vocational Educ.
Phoenix, Arizona

Ms. Mildred L. Jackson
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Mr. James Biddle
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Mr. H. E. Ruppert
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Baton Rouge, Louisiana

Mr. Ralph Bickford
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Ms. Marguerite Erickson
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Mr. Lester B. Kesterson
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Mr. Larry Loomis
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Mr. Darrell Jones
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Ms. Marian Potter
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Mr. Horace C. Robertson
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Mr. H. Dean Herman
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Salem, Oregon

Ms. Blanche M. Curran
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Dep't. of Education
Harrisburg, Pennsylvania

Mr. David Thompson
Texas Educ. Agency
Austin, Texas

Mr. Charles L. Guatney
Div. of Vocational-Technical Educ.
State Dep't. of Education
Montpelier, Vermont

Mr. Wayne Harrison
State Dep't of Public Instruction
Madison, Wisconsin

Business and Office
Delphi Panel Members

Teacher Educators

Lloyd W. Bartholome
Utah State University

Don Bright
Bowling Green University

Wells F. Cook
Central Michigan University

Mary W. Durso
University of South Florida

J. Curtis Hall
Virginia Commonwealth University

Robert E. Hoskinson
Washington State University

Margaret L. Jantze
Wichita State University

Wayne G. Little
St. Cloud State College

Ralph E. Mason
Indiana State University

Bert Masterson
Colorado State University

Harves Rahe
Southern Illinois University

Doris A. Slaaten
Minot State College

Frances Stauffer
Old Dominion University

Roland A. Thornburg
Jacksonville State University

State Supervisor

Elmer Bittleston
Idaho

Charles L. Bright
Kentucky

Louis Chacon
Arizona

J. R. Chaney
Missouri

Walter A. Chojnowski
Wisconsin

Jean Christian
Louisiana

Helen Cofer
Georgia

Wallace Halverson
South Dakota

John D. Lee
Indiana

Conway McCracken
Mississippi

Jeanette McGlamory
Florida

Thomas E. Miller
Maryland

Rex Moore
Oklahoma

Donald G. Smith
Iowa

Carol J. Vote
Colorado

Sandra Yelverton
Alabama

Appendix D

VOCATIONAL TEACHER COMPETENCY PROFILE

I. Program Planning, Development, and Evaluation

1. Plan a community survey.
2. Conduct and analyze community survey data.
3. Report and use the findings of a community survey.
4. Organize or reorganize an occupational advisory.
5. Maintain an occupational advisory committee.
6. Develop vocational education program goals and objectives.
7. Conduct an occupational analysis.
8. Develop a course of study.
9. Develop long-range plans for a vocational program.
10. Conduct a student follow-up study.
11. Evaluate your vocational program.

II. Planning of Instruction

12. Determine needs and interests of students.
13. Write student performance objectives.
14. Plan a unit of instruction.
15. Write a lesson plan.
16. Select and obtain student instructional materials.
17. Prepare teacher-made instructional materials.

III. Execution of Instruction

18. Conduct individual and group field trips.
19. Conduct group discussions, panel discussions, and symposiums.

20. Stimulate learning through brainstorming, buzz group and question box techniques.

21. Direct students in instructing other students.

22. Employ the techniques of role-playing and simulation.

23. Direct student study.

24. Direct student laboratory experience.

25. Direct students in applying problem-solving techniques.

26. Direct the project method.

27. Introduce a lesson.

28. Summarize a lesson.

29. Employ oral questioning techniques.

30. Employ reinforcement techniques.

31. Provide instruction for slower and more capable students.

32. Present information through an illustrated talk.

33. Demonstrate a manipulative skill.

34. Demonstrate a concept or principle.

35. Direct individualized instruction.

36. Conduct team teaching.

37. Present information using a subject matter expert.

38. Illustrate with bulletin boards and exhibits.

39. Illustrate with models, real objects and flannel boards.

40. Present information with overhead and opaque materials.

41. Present information with filmstrips and slides.

42. Present information with films.

43. Present information with audio recordings.

44. Present information with televised and video-taped materials.

45. Direct programmed instruction.

46. Present information with the chalkboard and flip chart.

IV. Evaluation of Instruction

47. Establish criteria for student performance in a vocational education program.
48. Assess student cognitive performance.
49. Asses student affective performance.
50. Assess student psychomotor performance.
51. Determine student grades in a vocational program.
52. Evaluate instructional effectiveness.

V. Management

53. Project insturctional resource needs.
54. Prepare vocational budgets and reports.
55. Arrange for expanding facilities and for purchasing supplies for the vocational program.
56. Maintain a filing system.
57. Provide for the safety needs of vocational sutdents.
58. Provide for the first aid needs of vocational sutdents.
59. Assist students in developing self-discipline.
60. Manage equipment and supplies in the vocational laboratory.
61. Organize and maintain the vocational laboratory.

VI. Guidance

62. Select and use appropriate student data-collection sources and techniques.
63. Gather student data through personal.
64. Use conferences to help students meet personal, educational and vocational needs.
65. Plan and conduct classroom and related activities on educational and career opportunities.
66. Assist students in applying for employment or further education.

VII. School-Community Relations

67. Develop a plan for school-community relations.
68. Give presentations to school and community groups to promote a vocational education program.
69. Provide brochures to inform the school and community about the vocational education program.
70. Provide displays in the school and community on the vocational program.
71. Prepare news releases and manuscripts to promote the vocational program.
72. Plan, develop and present television and radio programs to promote the vocational program.
73. Conduct an open house.
74. Provide service to and maintain liaison with members of the community.
75. Cooperate with state and local educators.
76. Obtain feedback from the school and community concerning the vocational education program.

VIII. Student Vocational Organization

77. Develop a personal philosophy of a student organization in vocational education.
78. Establish a student organization in vocational education.
79. Prepare students for leadership roles in the student vocational organization.
80. Assist students in developing and financing a yearly program of activities.
81. Supervise activities of the student vocational organization.
82. Provide learning experiences for vocational students through contests.

IX. Professional Role and Development

83. Keep up-to-date in your profession and in your occupational specialty.
84. Serve the profession.
85. Establish and maintain a personal professional philosophy and ethical standards.
86. Serve the school and community.
87. Select, obtain and maintain a job in keeping with your professional qualifications.
88. Plan and provide laboratory experiences for prospective teachers.
89. Plan the student teaching experience.
90. Supervise student teachers.

X. Coordination

91. Establish criteria and guidelines for initiating a cooperative vocational education program.
92. Establish and apply policies for managing student attendance, transfers and terminations.
93. Identify and enroll prospective students.
94. Identify and secure prospective training stations.
95. Develop training agreements and training plans for placing students on-the-job.
96. Develop the training ability of on-the-job instructors.
97. Coordinate and supervise on-the-job instruction.
98. Evaluate students on-the-job.
99. Plan and conduct related instruction.
100. Conduct an employer-employee appreciation event.

Performance Based Curricula Program, The Center for Vocational Education, The Ohio State University, Columbus, Ohio August 1975.

Appendix E

March 19, 1976

HOW IMPORTANT IS OCCUPATIONAL EXPERIENCE?

In addition to the specific benefits of occupational experience, the whole idea of requiring occupational experience for vocational teachers is quite a controversial subject.

Even though nearly every state requires occupational experience of their vocational teachers, the length and types of experience vary from state to state. If the occupational experiences that contribute significantly to the development of an effective vocational teacher could be identified, the results would certainly help bring about realistic occupational experience requirements.

As a business and office (teacher/teacher educator/state supervisor), your help is being asked to identify the relative value of occupational experience in developing competencies needed by vocational teachers. Classroom teachers and state supervisors are also being asked to participate in this study.

Please read the enclosed instruction sheet, fill out the questionnaire, and return it to me in the enclosed envelope within two weeks. Each questionnaire is coded for purposes of identification only to assist in a follow-up of forms unreturned by the third week.

Your cooperation in helping to clarify the importance of occupational experience will be appreciated.

Nancy Groneman

Enclosures

THE UNIVERSITY OF NEBRASKA–LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

March 25, 1976

WHAT IS THE VALUE OF OCCUPATIONAL EXPERIENCE TO VOCATIONAL TEACHERS:

Almost every state requires a number of years of work experience in order to teach in a vocational education program. However, those requirements vary from state to state based on the number of years of experience, the type of experience, and the recency of that experience. Very little is known at this time about the specific value of occupational experience to vocational teachers.

I need your expertise as a distributive education state supervisor. Will you give twenty minutes of your time to help identify the value of skills previously identified as needed by vocational teachers. We need to determine which of these skills, if any, are influenced by a teacher's occupational experience.

Please complete the questionnaire using the directions on the enclosed instruction sheet. The information you provide is strictly confidential. The questionnaire is coded only to help follow-up on those that are not returned.

Occupational experience is an area of special interest in vocational education today. You can help clarify some of the concerns by responding to this questionnaire. Please complete it this week and return it in the enclosed envelope. Your help is sincerely appreciated.

Jim Burrow
Distributive Education
Teacher Educator

Instructions

The following pages contain a list of competencies that have been identified as important skills needed by vocational teachers. We would like your expert opinion of the value of occupational experience in developing those teaching skills.

Do you believe that occupational experience can help a vocational teacher develop the skill listed? For each of the statements, indicate your degree of agreement or disagreement using the following code:

SD--Strongly Disagree: There is absolutely no relationship between occupational experience and the development of this skill.

D--Disagree: Occupational experience is not important in the development of this skill.

PD--Partially Disagree: Occupational experience probably does not contribute to the development of this skill.

U--Undecided

PA--Partially Agree: Occupational experience may contribute to the development of this skill.

A--Agree: Occupational experience is important in the development of this skill.

SA--Strongly Agree: Occupational experience is absolutely essential in the development of this skill.

There are no right or wrong answers. Your response should be based upon your experience and expertise in vocational education.

Please consider each statement carefully and circle the response that best reflects your opinion. You should be able to complete this questionnaire in approximately 20 minutes.

REMEMBER--We want to know the importance of occupational experience in developing each skill listed!

I DISAGREE/AGREE THAT OCCUPATIONAL EXPERIENCE HELPS A VOCATIONAL TEACHER TO:

SD D PD U PA A SA 1. Plan a community survey.

SD D PD U PA A SA 2. Conduct a community survey and analyze the collected data.

SD D PD U PA A SA 3. Report and use the findings of a community survey.

SD D PD U PA A SA 4. Organize or reorganize an occupational advisory committee.

SD D PD U PA A SA 5. Maintain an occupational advisory committee.

SD D PD U PA A SA 6. Develop vocational education program goals and objectives.

SD D PD U PA A SA 7. Conduct an occupational analysis.

SD D PD U PA A SA 8. Develop a course of study.

SD D PD U PA A SA 9. Develop long-range plans for a vocational program.

SD D PD U PA A SA 10. Conduct a student follow-up study.

SD D PD U PA A SA 11. Evaluate your vocational program.

SD D PD U PA A SA 12. Determine needs and interests of students.

SD D PD U PA A SA 13. Write student performance objectives.

SD D PD U PA A SA 14. Plan a unit of instruction.

SD D PD U PA A SA 15. Write a lesson plan.

SD D PD U PA A SA 16. Select and obtain instructional materials.

SD D PD U PA A SA 17. Prepare teacher-made instructional materials.

SD D PD U PA A SA 18. Conduct individual and group field trips.

SD D PD U PA A SA 19. Conduct group discussions, panel discussions, and symposiums.

SD D PD U PA A SA 20. Stimulate learning through brainstorming, buzz group, and question-box technique.

SD D PD U PA A SA 21. Direct students in instructing other students.

SD D PD U PA A SA 22. Employ the techniques of role playing and simulation.

SD D PD U PA A SA 23. Direct student study.

SD D PD U PA A SA 24. Direct student laboratory experiences.

I DISAGREE/AGREE THAT OCCUPATIONAL EXPERIENCE HELPS A VOCATIONAL TEACHER TO:

SD D PD U PA A SA 25. Direct students in applying problem-solving techniques.

SD D PD U PA A SA 26. Direct the project method.

SD D PD U PA A SA 27. introduce a lesson.

SD D PD U PA A SA 28. Summarize a lesson.

SD D PD U PA A SA 29. Employ oral-questioning techniques.

SD D PD U PA A SA 30. Employ reinforcement techniques.

SD D PD U PA A SA 31. Provide instruction for slower and more capable students.

SD D PD U PA A SA 32. Present information through an illustrated talk (lecture).

SD D PD U PA A SA 33. Demonstrate a manipulative skill.

SD D PD U PA A SA 34. Demonstrate a concept or principle.

SD D PD U PA A SA 35. Direct individualized instruction.

SD D PD U PA A SA 36. Conduct team teaching.

SD D PD U PA A SA 37. Present information using a subject-matter expert.

SD D PD U PA A SA 38. Illustrate with bulletin boards and exhibits.

SD D PD U PA A SA 39. Illustrate a lesson with models, real objects, and flannel boards.

SD D PD U PA A SA 40. Present information with audio-visual materials and equipment such as opaque overhead, filmstrips, slides, films, audio-recordings, television, video tapes, chalkboards, and flip charts.

SD D PD U PA A SA 41. Direct programmed instruction.

SD D PD U PA A SA 42. Establish criteria for student performance in a vocational education program.

SD D PD U PA A SA 43. Assess student cognitive performance.

SD D PD U PA A SA 44. Assess student affective performance.

SD D PD U PA A SA 45. Assess student psychomotor performance.

SD D PD U PA A SA 46. Determine student grades in a vocational program.

SD D PD U PA A SA 47. Evaluate your instructional effectiveness.

I DISAGREE/AGREE THAT OCCUPATIONAL EXPERIENCE HELPS A VOCATIONAL TEACHER TO:

SD D PD U PA A SA 48. Project instructional resource needs.

SD D PD U PA A SA 49. Prepare vocational budgets and reports.

SD D PD U PA A SA 50. Arrange for expanding facilities and for purchasing supplies for the vocational program.

SD D PD U PA A SA 51. Maintain a filing system.

SD D PD U PA A SA 52. Provide for the safety needs of vocational students.

SD D PD U PA A SA 53. Provide for the first-aid needs of vocational students.

SD D PD U PA A SA 54. Assist students in developing self-discipline.

SD D PD U PA A SA 55. Manage equipment and supplies in the vocational laboratory.

SD D PD U PA A SA 56. Organize and maintain the vocational laboratory.

SD D PD U PA A SA 57. Select and use appropriate student data-collection sources and techniques.

SD D PD U PA A SA 58. Gather student data through personal interviews.

SD D PD U PA A SA 59. Use conferences to help students meet personal, educational, and vocational needs.

SD D PD U PA A SA 60. Plan and conduct classroom and related activities on educational and career opportunities.

SD D PD U PA A SA 61. Assist students in applying for employment or further education.

SD D PD U PA A SA 62. Develop a plan for school-community relations.

SD D PD U PA A SA 63. Give presentations to school and community groups to promote a vocational education program.

SD D PD U PA A SA 64. Prepare brochures to inform the school and community about the vocational education program.

SD D PD U PA A SA 65. Provide displays in the school and community on the vocational program.

SD D PD U PA A SA 66. Prepare news releases and manuscripts to promote the vocational program.

SD D PD U PA A SA 67. Plan, develop, and present television and radio programs to promote the vocational program.

SD D PD U PA A SA 68. Conduct an open house.

I DISAGREE/AGREE THAT OCCUPATIONAL EXPERIENCE HELPS A VOCATIONAL TEACHER TO:

SD D PD U PA A SA 69. Provide service to and maintain liaison with members of the community.

SD D PD U PA A SA 70. Cooperate with state and local educators.

SD D PD U PA A SA 71. Obtain feedback from the school and community concerning the vocational education program.

SD D PD U PA A SA 72. Develop a personal philosophy of a student organization in vocational education.

SD D PD U PA A SA 73. Establish a student organization in vocational education.

SD D PD U PA A SA 74. Prepare students for leadership roles in the student vocational organization.

SD D PD U PA A SA 75. Assist students in developing and financing a yearly program of activities.

SD D PD U PA A SA 76. Supervise activities of the student vocational organization.

SD D PD U PA A SA 77. Provide learning experiences for vocational students through the student organization.

SD D PD U PA A SA 78. Keep up to date in your profession.

SD D PD U PA A SA 79. Keep up to date in your occupational specialty.

SD D PD U PA A SA 80. Participate in professional activities.

SD D PD U PA A SA 81. Establish and maintain a personal professional philosophy and ethical standards.

SD D PD U PA A SA 82. Participate in non-teaching school functions.

SD D PD U PA A SA 83. Select and obtain a job in keeping with your professional qualifications.

SD D PD U PA A SA 84. Plan and provide laboratory experiences for prospective teachers.

SD D PD U PA A SA 85. Plan and provide student teaching experiences.

SD D PD U PA A SA 86. Establish criteria and guidelines for initiating a cooperative vocational education program.

SD D PD U PA A SA 87. Establish and apply policies for managing student attendance, transfers, and terminations.

SD D PD U PA A SA 88. Identify and enroll prospective students.

I DISAGREE/AGREE THAT OCCUPATIONAL EXPERIENCE HELPS A VOCATIONAL TEACHER TO:

SD D PD U PA A SA 89. Identify and secure prospective training stations.

SD D PD U PA A SA 90. Develop training agreements and training plans for placing students on the job.

SD D PD U PA A SA 91. Develop the training ability of on-the-job instructors.

SD D PD U PA A SA 92. Coordinate and supervise on-the-job instruction.

SD D PD U PA A SA 93. Evaluate students on the job.

SD D PD U PA A SA 94. Plan and conduct related instruction.

SD D PD U PA A SA 95. Conduct an employer-employee appreciation event.

BACKGROUND INFORMATION

Please provide the following information about your experience:

TOTAL YEARS OF OCCUPATIONAL EXPERIENCE (NON-TEACHING)________

YEARS OF OCCUPATIONAL EXPERIENCE IN BUSINESS AND OFFICE OCCUPATIONS________

WHEN WAS YOUR MOST RECENT OCCUPATIONAL EXPERIENCE?

________Within the past year
________1-5 years ago
________6-10 years ago
________Over 10 years ago

TOTAL YEARS OF TEACHING EXPERIENCE________

YEARS OF BUSINESS AND OFFICE EDUCATION TEACHING EXPERIENCE________

YEARS OF TEACHER EDUCATION EXPERIENCE________

YEARS OF STATE SUPERVISION EXPERIENCE________

College Degree:

_______Bachelors
_______Masters
_______Doctorate
_______Other__________

Teaching Certificate:

_______Yes
_______No

Description of current job (Check all that apply):

_______Secondary
_______Postsecondary
_______Adult
_______State Supervisor
_______Teacher Educator

_______Teach separate courses
_______Supervise projects, simulations, labs
_______Coordinate on-the-job experiences
_______Other_________________________

THE UNIVERSITY OF NEBRASKA–LINCOLN
DEPARTMENT OF BUSINESS EDUCATION
LINCOLN, NEBRASKA 68588

April 12, 1976

HOW DOES OCCUPATIONAL EXPERIENCE BENEFIT VOCATIONAL EDUCATION TEACHERS?

Two weeks ago I mailed you a questionnaire. I wanted your expertise in determining the value of occupational experience in developing teaching skills of vocational teachers. As of today, I haven't received your response.

The best information on the value of occupational experience can be provided by those who have had experience in vocational education. I need your help! If you haven't completed the questionnaire please do it today. It should take only twenty minutes to complete, and your cooperation will be sincerely appreciated.

Jim Burrow
Distributive Education
Teacher Educator
311 Teachers College
University of Nebraska
Lincoln, Nebraska 68588
(402) 472-2242

THE UNIVERSITY OF NEBRASKA–LINCOLN THE UNIVERSITY OF NEBRASKA AT OMAHA
THE UNIVERSITY OF NEBRASKA MEDICAL CENTER

Appendix F

The Value of Occupational Experience in Developing Specific Teaching Competencies as Determined by Distributive Education Personnel

Rank Order	Statement Number	Mean Score	Rank Order	Statement Number	Mean Score
1	79	6.22	41	45	4.97
2	93	6.21	43	50	4.96
3	92	6.16	43	44	4.96
4	89	6.13	43	17	4.96
5	90	5.93	46	12	4.93
6	61	5.91	47	19	4.92
7	78	5.73	48	65	4.91
8	94	5.72	49	64	4.89
9	91	5.70	50	43	4.83
10	42	5.67	50	85	4.83
10	7	5.67	52	54	4.80
12	6	5.66	53	59	4.79
13	8	5.64	54	32	4.72
14	24	5.58	55	95	4.71
15	33	5.56	56	47	4.68
16	83	5.54	57	66	4.66
16	69	5.54	58	82	4.65
18	52	5.44	58	58	4.65
18	18	5.44	60	77	4.64
20	60	5.43	61	46	4.61
21	62	5.40	62	35	4.60
22	63	5.39	63	75	4.58
23	11	5.37	64	67	4.57
24	81	5.32	65	88	4.55
25	16	5.30	66	72	4.48
26	9	5.29	66	74	4.48
27	86	5.28	68	39	4.42
28	56	5.27	69	30	4.41
29	14	5.21	69	3	4.41
30	4	5.19	71	2	4.34
31	25	5.11	71	22	4.34
32	5	5.07	71	1	4.34
32	13	5.07	74	76	4.32
34	80	5.06	74	28	4.32
34	34	5.06	76	70	4.30
36	48	5.05	76	20	4.30
36	84	5.05	78	27	4.27
38	37	5.01	78	68	4.27
39	26	5.00	80	49	4.25
40	55	4.98	81	57	4.22
41	71	4.97	81	23	4.22

continued

Rank Order	Statement Number	Mean Score	Rank Order	Statement Number	Mean Score
81	21	4.22			
84	15	4.18			
85	38	4.09			
85	31	4.09			
87	73	4.07			
88	53	4.04			
89	51	4.01			
89	29	4.01			
91	87	3.97			
92	36	3.96			
93	10	3.91			
94	40	3.86			
95	41	3.83			

The Value of Occupational Experience in Developing Specific Teaching Competencies as Determined by Business and Office Education Personnel

Rank Order	Statement Number	Mean Score	Rank Order	Statement Number	Mean Score
1	79	6.06	43	72	4.86
2	42	5.96	43	33	4.86
3	92	5.92	46	95	4.85
4	61	5.92	47	46	4.84
5	93	5.88	48	87	4.83
6	89	5.87	49	45	4.79
7	6	5.80	49	22	4.79
8	7	5.74	51	43	4.78
9	91	5.73	52	16	4.77
10	8	5.71	53	85	4.73
11	11	5.70	54	19	4.72
12	86	5.69	55	77	4.70
13	94	5.68	55	34	4.70
14	78	5.67	57	54	4.67
15	90	5.65	58	65	4.64
16	60	5.61	59	10	4.60
17	9	5.53	60	32	4.59
18	83	5.36	61	74	4.55
19	4	5.29	62	66	4.49
20	56	5.28	63	3	4.48
21	24	5.26	64	1	4.47
22	63	5.25	64	48	4.47
23	13	5.26	66	37	4.46
24	14	5.23	67	88	4.43
25	5	5.23	68	67	4.41
26	26	5.14	69	58	4.40
27	62	5.13	69	57	4.40
28	18	5.12	71	2	4.38
29	17	5.11	72	51	4.32
30	84	5.07	72	80	4.32
31	50	5.01	72	39	4.32
32	69	5.00	75	35	4.31
33	48	4.99	75	73	4.31
34	47	4.97	77	20	4.28
35	81	4.97	78	30	4.27
36	44	4.95	79	76	4.25
36	64	4.95	79	23	4.25
38	55	4.92	81	15	4.21
39	52	4.89	82	21	4.16
40	59	4.88	83	31	4.15
41	25	4.87	84	75	4.09
41	12	4.87	84	70	4.09
43	71	4.86	86	27	4.08

continued

Rank Order	Statement Number	Mean Score	Rank Order	Statement Number	Mean Score
86	38	4.08			
88	82	4.07			
88	29	4.07			
90	68	4.02			
91	28	3.97			
92	53	3.88			
93	36	3.84			
94	41	3.81			
95	40	3.80			

Appendix G

THE COMPONENTS AND ASSOCIATED COMPETENCIES UTILIZED FOR COMPETENCY VALIDATION

I. Program Planning, Development, and Evaluation

1. Plan a community survey.
2. Conduct a community survey and analyze the collected data.
3. Report and use the findings of a community survey.
4. Organize or reorganize an occupational advisory committee.
5. Maintain an occupational advisory committee.
6. Develop vocational education goals and objectives.
7. Conduct an occupational analysis.
8. Develop a course of study.
9. Develop long range plans for a vocational program.
10. Conduct a student follow-up study.
11. Evaluate your vocational program.

II. Instructional Planning

12. Determine needs and interests of students.
13. Write student performance objectives.
14. Plan a unit of instruction.
15. Write a lesson plan.
16. Select and obtain instructional materials.
17. Prepare teacher-made instructional materials.

III. Instructional Execution

18. Conduct individual and group field trips.
19. Conduct group discussions, panel discussions, and symposiums.

20. Stimulate learning through brainstorming, buzz group and question box techniques.
21. Direct students in instructing other students.
22. Employ the techniques of role playing and stimulation.
23. Direct student study.
24. Direct student laboratory experiences.
25. Direct students in applying problem-solving techniques.
26. Direct the project method.
27. Introduce a lesson.
28. Summarize a lesson.
29. Employ oral questioning techniques.
30. Employ reinforcement techniques.
31. Provide instruction for slower and more capable students.
32. Present information through an illustrated talk (lecture).
33. Demonstrate a manipulative skill.
34. Demonstrate a concept or principle.
35. Direct individualized instruction.
36. Conduct team teaching.
37. Present information using a subject matter expert.
38. Illustrate with bulletin boards and exhibits.
39. Illustrate a lesson with models, real objects and flannel boards.
40. Present information with audio-visual materials and equipment such as opaque overhead, filmstrips, slides, films, audio-recordings, television, video tapes, chalkboards, and flip charts.
41. Direct programmed instruction.

IV. Instructional Evaluation

42. Establish criteria for student performance in a vocational education program.

43. Assess student cognitive performance.

44. Assess student affective performance.

45. Assess student psychomotor performance.

46. Determine student grades in a vocational program.

47. Evaluate your instructional effectiveness.

V. Instructional Management

48. Project instructional resource needs.

49. Prepare vocational budgets and reports.

50. Arrange for expanding facilities and for purchasing supplies for the vocational program.

51. Maintain a filing system.

52. Provide for the safety needs of vocational students.

53. Provide for the first aid needs of vocational students.

54. Assist students in developing self-discipline.

55. Manage equipment and supplies in the vocational laboratory.

56. Organize and maintain the vocational laboratory.

VI. Guidance

57. Select and use appropriate student data-collection sources and techniques.

58. Gather student data through personal interviews.

59. Use conferences to help students meet personal, educational and vocational needs.

60. Plan and conduct classroom and related activities on educational and career opportunities.

61. Assist students in applying for employment or further education.

VII. School-Community Relations

62. Develop a plan for school-community relations.

63. Give presentations to school and community groups to promote a vocational education program.

64. Prepare brochures to inform the school and community about the vocational education program.

65. Provide displays in the school and community on the vocational program.

66. Prepare news releases and manuscripts to promote the vocational program.

67. Plan, develop and present television and radio programs to promote the vocational program.

68. Conduct an open house.

69. Provide service to and maintain liaison with members of the community.

70. Cooperate with state and local educators.

71. Obtain feedback from the school and community concerning the vocational education program.

VIII. Student Vocational Organization

72. Develop a personal philosophy of a student organization in vocational education.

73. Establish a student organization in vocational education.

74. Prepare students for leadership roles in the student vocational organization.

75. Assist students in developing and financing a yearly program of activities.

76. Supervise activities of the student vocational organization.

77. Provide learning experiences for vocational students through the student organization.

IX. Professional Role and Development

78. Keep up-to-date in your profession.

79. Keep up-to-date in your occupational specialty.

80. Participate in professional activities.

81. Establish and maintain a personal professional philosophy and ethical standards.

82. Participate in non-teaching school functions.

83. Select and obtain a job in keeping with your professional qualifications.

84. Plan and provide laboratory experiences for prospective teachers.

85. Plan and provide student teaching experiences.

X. Coordination

86. Establish criteria and guidelines for initiating a cooperative vocational education program.

87. Establish and apply policies for managing student attendance, transfers and terminations.

88. Identify and enroll prospective students.

89. Identify and secure prospective training stations.

90. Develop training agreements and training plans for placing students on the job.

91. Develop the training ability of on-the-job instructors.

92. Coordinate and supervise on the job instruction.

93. Evaluate students on the job.

94. Plan and conduct related instruction.

95. Conduct an employer-employee appreciation event.

CE 010 319

Appendix H

The Effect of Occupational Experience on Ten Components of Vocational Teacher Performance as Determined by Distributive and Business and Office Education Personnel

Components	Business and Office Education			Distributive Education		
	Teachers	Teacher Educators	State Supervisors	Teachers	Teacher Educators	State Supervisors
Program Planning, Development, and Evaluation	5* 4.93	2 5.12	3 5.31	6 4.97	3 5.10	4 4.92
Planning of Instruction	4 4.94	6 4.80	6 5.07	3 5.08	8 4.58	3 4.97
Execution of Instruction	9 4.28	10 4.11	9 4.83	9 4.71	10 4.18	9 4.43
Evaluation of Instruction	6 4.79	3 4.99	2 5.36	5 5.05	7 4.59	5 4.90
Management	7 4.94	8 4.52	7 5.06	8 4.83	6 4.61	7 4.66
Guidance	3 4.95	4 4.81	5 5.31	4 5.07	5 4.80	6 4.77
School Community Relations	8 4.43	7 4.65	8 4.94	7 4.94	4 4.90	8 4.54
Student Vocational Organizations	10 4.19	9 4.25	10 4.72	10 4.60	9 4.20	10 4.09
Professionel Role and Development	2 4.96	5 4.81	4 5.31	2 5.35	2 5.26	2 5.10
Coordination	1 5.08	1 5.28	1 5.67	1 5.41	1 5.54	1 5.29

* Rank
  Mean Score